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1936.

QUEENSLAND.

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15 APR 1937

ANNUAL REPORT

ON THE

HEALTH AND MEDICAL SERVICES

OF THE

STATE OF QUEENSLAND

FOR THE

YEAR 1935-36.

PRESENTED TO PARLIAMENT BY COMMAND.

BRISBANE:
BY AUTHORITY DAVID WHYTE, GOVERNMENT PRINTER.

A. 37—1936

REPORTS UPON THE OPERATIONS OF THE HEALTH AND MEDICAL SERVICES OF THE STATE OF QUEENSLAND.

TO THE HONOURABLE THE MINISTER FOR HEALTH AND HOME AFFAIRS.

SIR,—I have the honour to submit for presentation to Parliament reports regarding the operations of the following Health and Medical Services.

R. W CILENTO, M.D., B.S. (Adel.), D.T.M. and H. (Eng.),
Director-General of Health and Medical Services.

Department of Health (Sir Raphael Cilento, Kt. M.D.), Director-General of Health and Medical Services.

(Including the report of the Laboratory of Microbiology and Pathology, E. H. Derrick, M.D.).

Appendix A.—Hookworm Campaign (S. Thompson).

Appendix B.—Government Chemical Laboratory (F. Connah, F.I.C., A.A.C.I.).

Appendix C.—The Control of Weil's Disease in the Canegrowing areas.

Appendix D.—X-ray and other Electro-Medical Equipment Advisory Board.

Hospitals for the Insane (H. Byam Ellerton, M.R.C.S. Eng., L.R.C.P. Lond.), Inspector of Asylums

Infant and Child Welfare (A. Jefferis Turner, M.D. Lond., M.R.C.S., Eng.), Director of Child Welfare.

ANNUAL REPORT

OF THE

DIRECTOR-GENERAL

OF

HEALTH AND MEDICAL SERVICES

FOR THE

Year, 1935-36.

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SCHOOL OF HYGIENE & TROPICAL MEDICINE
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15 APR 1937

ANNUAL REPORT OF THE DIRECTOR-GENERAL OF HEALTH AND MEDICAL SERVICES, 1935-1936.

SIR,—I have the honour to submit for the information of the Minister the Annual Report of this Department for the year ending 30th June, 1936.

Vital Statisties as under are furnished to enable comparison to be made between this State and the other States of the Commonwealth, as well as other countries inhabited by white races.

It is interesting to note that Queensland still compares more than favourably with other countries in the tabulated statements.

The estimated population of the State on the 1st January, 1936, was 979,500, and that of the metropolitan area 306,104.

CRUDE BIRTH RATE.

Country.	Year.	Birth Rate.	Year.	Birth Rate.
Commonwealth	1934	16·39	1935	16·55
Queensland	1934	18·16	1935	18·31
New South Wales	1934	16·52	1935	16·89
Victoria	1934	15·20	1935	15·16
South Australia	1934	14·50	1935	14·14
Western Australia	1934	17·66	1935	18·23
Tasmania	1934	19·51	1935	19·41
New Zealand	1934	16·47	1935	16·13
England and Wales	1934	14·8	1935	Not available
Scotland	1934	18·0	1935	Not available
Irish Free State	1934	19·2	1935	Not available
Canada	1934	20·4	1935	Not available

DEATH RATE.

Country.	Year.	Death Rate.	Year.	Death Rate.
Commonwealth	1934	9·32	1935	9·46
Queensland	1934	8·57	1935	9·16
New South Wales	1934	8·95	1935	9·28
Victoria	1934	10·18	1935	10·03
South Australia	1934	9·26	1935	8·83
Western Australia	1934	9·23	1935	9·25
Tasmania	1934	10·23	1935	10·25
New Zealand	1934	8·48	1935	8·22
England and Wales	1934	11·8	1935	Not available
Scotland	1934	12·9	1935	Not available
Irish Free State	1934	13·0	1935	Not available
Canada	1934	9·4	1935	Not available

RATES OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Death Rate per 1,000 Births.	Year.	Death Rate per 1,000 Births.
Commonwealth	1934	43·59	1935	39·79
Queensland	1934	40·61	1935	37·26
New South Wales	1934	46·36	1935	39·44
Victoria	1934	44·63	1935	41·21
South Australia	1934	35·58	1935	34·95
Western Australia	1934	40·89	1935	40·15
Tasmania	1934	42·28	1935	51·84
New Zealand	1934	31·74	1935	32·31
England and Wales	1934	58·0	1935	Not available
Scotland	1934	78·0	1935	Not available
Irish Free State	1934	63·0	1935	Not available
Canada	1934	72·0	1935	Not available

Communicable Diseases.

The monthly incidence of infectious diseases notified throughout the State is shown in the following tables. In addition, tables for the calendar year 1935 are furnished as hereunder:—

Communicable Diseases (Exclusive of Venereal Diseases)—1st July, 1935, to 30th June, 1936.

(Metropolitan Area.)

Diseases.	Months.												Totals.		
	1935.						1936.								
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	1935-36.	1934-35.	1933-34.
Anchylostomiasis ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	1
Acute Anterior Poliomyelitis	..	..	..	..	..	..	..	..	..	2	..	..	2	7	5
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Bilharziasis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Cerebro-spinal Meningitis (epidemic)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Coastal Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Cholera, Asiatic ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Diphtheria	63	52	38	37	46	39	32	47	60	72	52	56	594	637	778
Dysentery, Amœbic ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Dysentery, Bacillary ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Encephalitis lethargica	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	1
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Leprosy	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Malaria	..	..	..	..	..	..	..	1	1	..	..	..	2	3	1
Mossman Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Plague (Bubonic or Oriental)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Puerperal Fever ..	..	..	1	1	..	1	3	..	..	..	..	1	7	2	6
Puerperal Pyrexia ..	..	..	1	..	..	1	..	..	1	..	..	1	4	1	1
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Sarina Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Scarlet Fever	35	52	44	62	36	36	30	27	24	35	25	43	449	251	175
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Typhoid Fever (includes Paratyphoid)	..	..	2	..	2	..	2	2	1	1	1	..	11	20	42
Typhus Fever (all forms)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	1	1
Tuberculosis (all forms)	9	2	7	9	10	9	14	11	13	5	10	2	101	96	112
Weil's Disease ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Totals ..	107	106	93	109	94	86	81	88	100	115	88	103	1,170	1,018	1,083
1934–35 Totals	107	84	89	84	69	73	77	56	81	99	108	91	..	1,018	..
1933–34 Totals	89	80	86	77	55	101	79	88	93	116	119	100	..	..	1,083

(Outside Areas).

Diseases.	Months.												Totals.		
	1935.						1936.								
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	1935-36.	1934-35.	1933-34.
Anchylostomiasis ..	..	4	..	..	..	..	..	..	3	1	..	..	8	2	3
Acute Anterior Poliomyelitis	..	2	..	1	..	..	..	3	3	..	..	3	12	23	6
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	1
Bilharziasis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Cerebro-spinal Meningitis (Epidemic)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Coastal Fever ..	..	..	..	..	1	..	..	1	..	1	..	..	3	1	5
Cholera, Asiatic ..	..	..	1	..	..	..	..	..	..	..	..	3	4	46	Nil
Diphtheria	75	46	53	52	59	43	39	40	63	77	92	133	772	555	927
Dysentery, Amœbic ..	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Dysentery, Bacillary	..	..	..	..	..	..	..	..	..	..	..	..	Nil	6	Nil
Encephalitis lethargica	1	..	1	..	..	..	..	..	1	..	..	1	4	1	5
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	1	Nil
Leprosy	1	1	..	2	..	..	..	..	..	1	..	..	5	6	11
Malaria	3	2	2	2	1	..	2	..	..	..	..	..	12	20	990
Mossman Fever ..	..	..	..	..	..	..	..	..	..	....	..	..	Nil	7	Nil
Plague (Bubonic or Oriental)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Puerperal Fever ..	..	..	1	1	..	..	..	2	2	1	1	Nil	8	7	14
Puerperal Pyrexia ..	..	1	..	1	..	..	1	..	2	..	1	Nil	6	7	5
Relapsing Fever ..	..	..	1	..	..	..	..	..	..	..	..	..	1	Nil	Nil
Sarina Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Scarlet Fever	23	29	26	22	36	21	25	24	22	39	30	30	327	271	368
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Typhoid Fever (includes Paratyphoid)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil	Nil
Typhus Fever (all forms)	2	2	..	1	3	6	3	12	2	6	5	2	44	78	56
Tuberculosis (all forms)	3	3	3	1	3	1	1	..	2	..	3	14	34	10	1
Weil's Disease ..	2	5	11	7	9	11	19	12	4	14	10	9	113	105	99
Yellow Fever	19	..	..	..	..	..	..	..	..	..	1	3	23	6	Nil
Totals ..	129	95	99	90	112	82	90	94	104	140	143	198	1,376	1,152	2,491
1934–35 Totals	128	103	104	108	83	82	79	72	109	87	78	119	..	1,152	..
1933–34 Totals	128	111	130	109	120	110	124	125	141	131	138	1,124	..	..	2,491

Annual Statement of Notifiable Diseases during Calendar Year 1935 (Metropolitan Area).

Diseases.	Months.												Totals.	
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	1935.	1934.
Anchylostomiasis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	2
Acute Anterior Poliomyelitis	1	..	1	..	..	2	..	..	..	..	..	..	4	4
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Bilharziasis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Cerebro-spinal Meningitis	..	..	..	.	..	..	..	..	..	..	..	..	Nil	Nil
Cholera, Asiatic	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Coastal Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Diphtheria	46	23	50	68	69	60	63	52	38	37	46	39	591	731
Dysentery, Amœbic	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Dysentery, Bacillary	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Encephalitis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Leprosy	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Malaria	..	..	..	..	1	..	..	..	..	..	..	..	1	2
Mossman Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Plague (Bubonic or Oriental)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Puerperal Fever	..	2	..	..	..	..	..	..	1	1	..	1	5	4
Puerperal Pyrexia	..	..	..	..	..	1	..	..	1		..	1	3	Nil
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Sarina Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Scarlet Fever	17	14	22	26	23	20	35	52	44	62	36	36	387	227
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Tuberculosis (all forms)	12	14	5	5	11	7	9	2	7	9	10	9	100	97
Typhoid Fever (includes Paratyphoid)	1	3	3	..	3	1	..	..	2	..	2	..	15	32
Typhus Fever (all forms)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	2
Weil's Disease	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Totals	77	56	81	99	107	91	107	106	93	109	94	86	1,106	1,101
1934 Totals	79	88	93	116	119	100	107	84	89	84	69	73	1,101	Nil
1933 Totals	121	100	219	111	99	90	89	80	86	77	95	101	1,268	Nil
1932 Totals	157	108	52	61	78	95	101	128	78	110	125	141	1,234	Nil
1931 Totals	69	59	79	123	169	159	131	94	89	83	78	132	1,265	Nil

Annual Statement of Notifiable Diseases during Calendar Year 1935 (Outside Areas).

Diseases.													Totals.	
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	1935.	1934.
Anchylostomiasis	1	..	..	..	..	1	..	4	..	..	..	..	6	1
Acute Anterior Poliomyelitis	2	2	4	1	3	2	..	2	..	1	..	..	17	12
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	Nil	1
Bilharziasis	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Cerebro-spinal Meningitis	..	..	..	..	..	..	..	..	..	..	1	..	1	2
Cholera, Asiatic	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Coastal Fever	3	3	6	..	2	4	..	..	1	..	..	..	19	28
Diphtheria	25	31	42	29	28	69	75	46	53	52	59	43	552	809
Dysentery, Amœbic	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Dysentery, Bacillary	..	..	..	5	1	..	..	..	..	..	..	..	6	Nil
Encephalitis lethargica	..	..	1	..	..	..	1	..	1	..	..	..	3	2
Filariasis	..	..	1	..	..	..	..	..	..	..	..	..	1	Nil
Leprosy	..	..	1	..	..	1	1	1	..	..	..	..	4	9
Malaria	8	2	2	..	..	..	3	2	2	2	1	..	22	996
Mossman	1	2	1	..	3	..	..	..	..	2	..	..	9	Nil
Plague (Bubonic or Oriental)	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Puerperal Fever	1	..	1	..	..	1	..	..	1	1	..	..	5	7
Puerperal Pyrexia	..	1	..	1	..	3	..	1	..	1	..	..	7	6
Relapsing Fever	..	..	..	..	..	..	..	..	1	..	..	..	1	Nil
Sarina Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Scarlet Fever	18	10	17	19	19	23	23	29	26	22	36	21	263	380
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Tuberculosis (all forms)	4	13	21	24	15	6	2	5	11	7	9	11	128	72
Typhoid Fever (includes Paratyphoid)	16	8	10	8	5	6	2	2	..	1	3	6	67	58
Typhus Fever (all forms)	..	..	1	..	2	3	3	3	3	1	3	1	20	4
Weil's Disease	..	..	1	..	..	..	19	..	..	..	..	..	20	5
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	Nil	Nil
Totals	79	72	109	87	78	119	129	95	99	90	112	82	1,151	2,392
1934 Totals	124	125	141	131	138	1,124	128	103	105	109	83	82	Nil	2,392
1933 Totals	121	100	219	111	99	90	89	80	86	77	95	101	Nil	1,268
1932 Totals	157	108	52	61	78	95	101	128	78	110	125	141	Nil	1,234
1931 Totals	191	135	192	231	346	295	260	185	190	112	100	149	Nil	2,386

Diphtheria.

During the year under review severe epidemics of diphtheria were reported from the Southern States and although the total number of cases reported in this State shows an increase on that of last year, nothing of an epidemic character occurred. This is probably due to the large number of immunized children in the population.

The numbers of cases of diphtheria reported for the last three years are as follows:—

—	1935–6.	1934–5.	1933–4.
Brisbane	594	637	778
Outside Areas	772	555	927
Total	1,366	1,192	1,705

Immunization by anatoxin is being practised throughout the State and the percentage of immunized in the population is gradually increasing. Very few immunized children were reported as having contracted diphtheria and such cases were usually of a very mild type. In investigating several incidents of this nature the efficiency of the method used for immunization was occasionally a matter of doubt. It was found that one dose or two only had sometimes been given, and in places where there still remained a fear of undefined untoward results, minimal (and relatively useless) injections had been made the whole three doses not together totalling the amount usual for the second alone. It is nevertheless generally accepted that immunization has protected the child in Queensland, and in addition the practice markedly reduces the cost to the Local Authorities of the care and treatment of the disease.

The following list is of interest as showing the number of children immunized in the various Local Authorities' areas throughout the State and remaining effective:—

Immunization Incidence.

Total number immunized at the 30th June, 1936.

Area.	No.	Area.	No.	Area.	No.
Bowen	Nil	Carpentaria	Nil	Monto	438
Bundaberg	1,135	Chinchilla	32	Moreton	451
Cairns City	51	Cleveland	431	Mount Morgan	Nil
Charleville	602	Clifton	621	Mundubbera ..	209
Charters Towers	1,785	Cloncurry	511	Murgon	537
Coolangatta	Nil	Cook	Nil	Murilla	110
Dalby	442	Coomera	Nil	Murweh	75
Gladstone	89	Crow's Nest	547	Nanango (no record)	
Goondiwindi	606	Croydon	Nil	Nebo	Nil
Gympie	489	Dalrymple	16	Nerang	Nil
Hughenden	86	Degilbo	694	Noosa	1,395
Ipswich	1,713	Diamantina	Nil	Normanby	372
Mackay	1,324	Douglas	464	Paroo	440
Maryborough	2,595	Drayton	117	Peak Downs	93
Redcliffe	115	Duaringa	224	Perry	153
Rockhampton	2,186	Eacham	200	Pine	453
Roma	630	Eidsvold	315	Pioneer	1,130
Southport	213	Emerald	610	Pittsworth	177
Thursday Island	187	Esk	357	Proserpine	761
Toowoomba	3,534	Etheridge	74	Quilpie	212
Townsville	2,272	Fitzroy	Nil	Rosalie	1,060
Warwick	907	Flinders	118	Rosenthal	432
Allora	205	Gayndah	788	Rosewood	768
Aramac	262	Glengallan	1,312	Sarina	678
Atherton	171	Gooburrum	467	Stanthorpe	1,351
Ayr	Nil	Goolman	1,289	Tambo	21
Balonne	47	Herberton	434	Tambourine	300
Banana	474	Highfields	180	Tara	167
Barcaldine	90	Hinchinbrook	191	Tarampa	1,077
Barkly Tableland ..	Nil	Ilfracombe	44	Taroom	212
Barcoo	Nil	Inglewood	733	Thuringowa	Nil
Bauhinia	336	Isis	855	Tiaro	600
Beaudesert	707	Isisford	93	Tingalpa	313
Beenleigh	288	Jericho	181	Waggamba	428
Belyando	487	Johnstone	1,589	Wambo	724
Bendemere	230	Jondaryan	256	Wangaratta	Nil
Blackall	625	Kilcoy	600	Warroo	40
Booringa	253	Kilkivan	1,200	Waterford	99
Boulia	Nil	Kingaroy	750	Widgee	1,611
Broadsound	Nil	Kolan	459	Winton	2
Bulloo	Nil	Laidley	432	Wondai	682
Bungil	287	Landsborough	497	Woocoo	250
Burke	Nil	Livingstone	39	Woongarra	403
Burrum	1,238	Longreach	516	Woothakata	1,129
Caboolture	1,020	McKinlay	196	Wyangarie	185
Cairns Shire	3,300	Maroochy	1,975	Brisbane	13,819
Calliope	211	Millmerran	347		
Cambooya	30	Mirani	248	Total	86,543
Cardwell	727	Miriam Vale	235		

Scarlet Fever.

The total number of cases notified amounted to 776, which is the highest total of any year since 1928, when 848 cases were reported.

The numbers of cases reported for the last three years are as under:—

—	1935–6.	1934–5.	1933–4.
Brisbane	449	251	175
Outside areas	327	271	368
Total	776	522	543

Most cases were of a very mild type.

Several classes of erythematous eruptions of doubtful nature, but probably streptococcal, occur commonly.

Leprosy.

The position as regards leprosy remains practically stationary, as is shown by the following table:—

Inmates of Peel Island Lazaret.

1934. White Inmates.			1935. White Inmates.		
Remaining 1st January	30		Remaining 1st January	27	
Admitted	3		Admitted	4	
		33			31
Discharged	1		Discharged	6	
Deaths	5		Deaths	2	
		6			8
		27			23
1934. Coloured Inmates.			**1935. Coloured Inmates.**		
Remaining 1st January	32		Remaining 1st January	36	
Admitted	10		Admitted	11	
		42			47
Discharged	4		Discharged	2	
Deaths	2		Deaths	3	
		6			5
		36			42
Grand total as at 31st December, 1934			White Inmates	27	
			Coloured Inmates	36	
					63
Grand total as at 31st December, 1935			White Inmates	23	
			Coloured Inmates	42	
					65

Plague.

No case of plague has been reported in the State since the year 1922. The precautions possible are taken by local authorities in the areas under their control. This department is mainly concerned with the examination of potentially suspected material. During the year the Department's Laboratory examined 7,650 smears and 39,847 carcases of rodents.

The intensive campaign carried out against rats in the northern sugar districts as a measure of control of Weil's disease is directly valuable also against plague possibilities.

Tuberculosis (all forms).

The incidence of tuberculosis shows a slight increase, the number of cases reported being 113 as against 105 for 1934-35 and 99 for 1933-34.

Measures for the control of this disease are at present under investigation with a view to reorganisation. Two public Sanatoria exist and their modernisation is under discussion. Dr. A. Jefferis Turner reports as follows:—

> "During the year ended 30th June, 1936, the following patients were seen for the Tuberculosis Bureau:—
>
> One patient sent to Dalby Sanatorium;
> Three patients sent to Diamantina Hospital;
> Ten other patients.
>
> Of these, one patient was seen six times, one patient three times, and two patients twice."

Anchylostomiasis.

Active measures for the control of hookworm have been continued and the details are shown in appendix attached.

The notified cases include only a small proportion of those actually seen, as, with the exception of an occasional report, notification is rarely made by practitioners. One of the most discouraging impressions received in examination of the sanitary and preventive picture is the fact that although work has now continued for fifteen years against hookworm, medical men still fail to think of it, and regular examination for the disease is not performed in hospitals. Those who have seen how treatment halves hospital costs in areas where the disease is prevalent and materially reduces the intensity and duration of coincident diseases, will apprehend the preventible loss associated with this indifference.

Endemic Typhus Fever (Brill's Disease, Etc.).

During the year there were reported 34 cases as against 10 in the previous year.

This increase merely indicates more efficient search by medical men, whose interest in the problem has been stimulated by direct appeal from the Department. Definite areas of endemicity are now recognised as existing from the Bloomfield River in North Queensland (16°s) to Ingham (18° 40′s) and westerly over the Atherton Tableland. Doubtless the distribution is much wider spread. The occurrence of cases in every State of the Commonwealth and records of what now appear to have been epidemics of the mild endemic typhus associated with mouse plagues some years ago (Toowoomba, Warwick (28°s), and other localities) indicate the probabilities in this direction.

Typhus fever of both the "rural" and "urban" types commonly occur, and are closely associated with various forms of leptospirosis in North Queensland. Dr. Unwin, of Tully, has reported a series of cases which have impressive similarities with Japanese river fever (tsutsugamushi) as occurring in that locality. The rodents are frequently found mite infested and there are in the scrub areas mites very similar morphologically to the Japanese carrier. The patients show a typical small ulcer generally in the neighbourhood of the groin or armpit. Serelogical reactions are being pursued, but as yet are indeterminate. It is probable that several hundred cases of the disease occur each year, the great majority being very mild indeed and unrecognised.

Weil's Disease.

The returns as in previous years are incomplete and an attempt has been made to search out all cases through the co-operation of local medical practitioners, hospital boards, and diagnostic laboratories.

As a result, twenty-three cases have been recorded as against six for 1934-35.

In the Annual Report of the Director-General of Health and Medical Services to the 30th June, 1935, pages 17 to 22 inclusive, short-period fevers in North Queensland were discussed at some length, with particular reference to Weil's disease.

It was pointed out that for many years it has been recognised that apart from Malaria, which was formerly much more prevalent, a disease called "cane fever," and a disease called "scrub fever," had been locally observed, differing principally, not so much in symptoms as in the conditions under which they occurred. "Coastal fever" was a similar group, with variations and place names associated, the best known being "Mossman fever."

Although the attention of the general public was first attracted to this group by the outbreak of Weil's disease in Ingham in 1933-34, scattered observations had been made from 1922 until that date, and the occurrence of some forms of leptospirosis had been recognised and requests made to local medical practitioners for assistance with material. Little was forthcoming in this regard, however, and early in 1934, in anticipation of a possible outbreak that year, the present writer and F. McCallum visited North Queensland, warning all medical practitioners to be on the lookout for the disease, and to take advantage of the facilities offering at the Commonwealth Health Laboratories at Townsville and Cairns to identify the various forms of disorder. Two or three months later the first cases of Weil's disease were reported from Ingham, and an increasing series of cases of endemic typhus were also reported from different localities between Daintree and Ingham. Just as there had been a tendency in the first place to overlook Weil's disease altogether, there was a tendency subsequently to call everything that occurred "Weil's disease."

In the Annual Report, to which reference has been made above, the similarities of the leptospiral group to those found in Japan were pointed out. Leptospirosis consists in the North of at least two types of disease, one of which is severe and is possibly due to *Spirochæta* (L.) *icterohæmorrhagiæ,* and may justifiably be called "Weil's disease." Though the most severe of the local forms, the death rate is light. It is a disease that occurs in many countries of the world and is attracting considerable attention in Germany, Holland, and England at the present time. It is associated with infected slime or water contaminated by rat urine.

A much milder disease, almost identical in appearance, is probably caused by *Spirochæta* (L.) *hebdomadis,* and is merely the "7-day fever" so common in many tropical countries and referred to by the writer in 1923 in these areas. This disease clears up very rapidly—cases vary from three to eleven days in length—and after-effects are not observed. Quite a number of the cases diagnosed at sight as "Weil's disease" are really this lesser form. Cases have been found as far south as 60 miles north of Brisbane. Arrangements are in hand for serological comparisons and identifications against strains from Java, Malaya, Holland, and, if possible, Japan.

Apart from these forms and leptospirosis, there are at least three types of typhus present in the area as mentioned above.

Subtertian malaria, which also occurs in the neighbourhood of Cairns, produces a jaundice very similar to that found in many Weil's disease cases, and is a further, but less likely, source of confusion in diagnosis.

Individual cases of any one of these six infections can produce symptoms strikingly similar at first sight, and it is the universal experience of experts that it is impossible to determine which disease is at fault by clinical means, that is to say, by observation of the patient only. This has been very apparent, since clinical results when checked by laboratory methods for some cases thought to be Weil's disease have shown them to be endemic typhus, while some cases thought to be endemic typhus have turned out on serological examination to be Weil's disease.

It is also to be remembered that cases of the disease are found together, so that two men may report sick on the same farm and yet one may be suffering from Weil's disease and one from endemic typhus. This has occurred in several instances this year. It must also be borne in mind that occupation is no test of the disease. Many cases of Weil's disease have occurred in people who are not cutting cane, had no association with it, but obtained their infection in the scrub or even at home. Other cases have occurred where canecutters while cutting have become sick, not with Weil's disease but with the ordinary type of (rural) endemic typhus.

In every case suspected not only should Weil's disease be tested for, but on no account should the reaction for typhus (the Weil-Felix reaction) be omitted. It is hardly necessary to mention that these tests must be taken at particular periods of the disease to get the best indications. An advantage in true Weil's disease is that the reaction persists for a long time. The positives may be obtained for eight (8) years certainly, and for as much as seventeen to twenty years according to some observers. Weil-Felix reaction for endemic typhus produces good results until the fifth or sixth week, then gradually falls until by the twelfth week it is below the diagnostic baseline titre ($\frac{1}{125}$). Felix himself says that such reactions may be present often many years after the attack.

Of the various methods of laboratory examination, dark-ground examination of the blood, after double centrifuging, gives the earliest possible diagnosis, but is of doubtful value except in the hands of an expert. Cultivation of the blood is more successful when the blood is collected during the first three or four days, and particularly where the variety of leptospiræ is one that does not affect guinea pigs. It is generally held that the inoculation of guinea pigs with blood, urine, tissues, is better than attempts at direct culture. For infection of blood it is necessary to obtain a sample during the first six days of the disease while the patient still has a rising temperature. For agglutination reaction specimens are taken from the sixth to the eighth day and the results become well marked in the second week. With regard to the examination of the urine, leptospiræ are observed in severe cases about the eighth or ninth day, and they may continue for an average of six weeks to three months. The most favourable time for their demonstration in the urine is from fourteen to twenty-one days after the beginning of the disease. (A guinea pig must be inoculated for this test within an hour.) The presence of leptospiræ in the urine is a useful indicator of the progress of convalescence.

Many cases, of course, are not seriously sick at all, even with Weil's disease. One man at Gordonvale, scorning the manufactured panic in which so many people have been indulging recently, refused to enter hospital, and returned to work on the third day without any ill-effects. Though jaundiced at the outset, he has been completely well since. Many others have insisted upon leaving hospital on the sixth or seventh day of the disease. Generally speaking, the ordinary case may be regarded as a hospital case with complete disability for from seven to twenty-one days. Convalescence continues for from three weeks to six weeks, and in very severe cases may extend to three months.

From time to time cases come forward that produce histories of continued debility, breathlessness, and so forth, extending over periods as long as two years. In almost all these cases on examination it can be observed that some other factor is at work. It has sometimes been suggested that because these cases show a positive blood reaction to Weil's disease, they are still sick. This is naturally ridiculous, since the blood reaction only serves to show that they once had the disease, and may continue from eight to twenty years! A much more effective check in our experience is that for the presence of leptospiræ in the urine, which are seen, so far as experience goes, never to exceed 100 to 112 days, and usually to cease in from forty to sixty days.

The two types in which convalescence is prolonged are those in which a pre-existing tendency towards neurasthenia betrays itself after convalescence, and the patient becomes a neurasthenic, as one may say, "With his ear on his belly" listening with anxiety for the slightest gurgling. These are very difficult cases, and sympathy only tends to make them permanent. The institution of physical tests shows no organic lesion and they must be prevailed upon to return to a life of normal diet, exercise, and occupation.

The cases of continued debility, however, bring in an important factor often overlooked. This is the matter of hookworm infestation. Hookworm is common, to the somewhat startling figure of 19-25 per cent. among cutters in low-lying areas in the North. This is largely owing to faulty arrangements in respect of privies in the fields. Cutters foul the ground, and so infect it, and the infection is conveyed to others through bare feet, and so on. Where a heavy infestation of hookworm is present, the patient does not readily recover after Weil's disease.

His reserve has been broken down by the attack, and the presence of hookworms prevents his restoration to normal health and vigour. Unless he is treated for hookworm disease, he is not likely to respond readily to any form of tonic therapy. Treatment for hookworm disease might well be a routine during the convalescene of all sufferers from Weil's disease, or any other short period fevers in the North.

Finally, it may be stated that there is more than a probability that the presence of heavy infestation of hookworm may determine the progress of a case in severity; evidence is accumulating to indicate that those who are heavily infected with hookworm are likely to die of the disease, while those who are free from it are generally much less severely affected. In no long continued case of convalescence should the possibility of hookworm disease be overlooked, particularly where the symptoms are those of anæmia, debility, breathlessness on exertion, easy fatigue, and mental depression—all of which are common manifestations of the hookworm so common in the cane-cutting areas.

The actual progress of the campaign for the control of rats in the Hinchinbrook (Ingham) Shire area is described alsewhere.

Venereal Diseases.

The following particulars show the work carried out in connection with the venereal diseases sections of the Health Acts during the year ended 30th June, 1936:—

Incidence.

Notifications.—During the twelve months under review 1,120 persons were notified (anonymously) as suffering from venereal disease, as compared with 1,248 for the previous twelve months. As some of these patients had more than one infection, they represented 1,125 distinct infections with venereal disease, as compared with 1,293 during 1934-35.

Syphilis.—One hundred and twenty four of these infections were syphilitic, as compared with 246 in 1934-35. Acute (recently acquired) syphilis accounted for twenty-seven of these, which is in conformity with the apparent downward trend of this disease.

Gonorrhœa.—Nine hundred and ninety-four of the infections were for the various gonorrhœal infections (excluding ophthalmia) as compared with 1,016 in 1934-35.

Other Forms of Venereal Disease.—The milder notifiable diseases, such as venereal warts and chancroid, must be far commoner than the figures suggest, but very few practitioners will notify such cases.

The non-notifiable diseases of specific balanitis and lymphogranuloma both exist in Queensland, several of the former and one of the latter having been seen in Brisbane.

Unfortunately—in so far as venereal disease is concerned—notification figures certainly do not represent the true incidence of these diseases in Queensland. An accurate survey has not been possible up to date.

Official notification figures, however, do tell us something of the comparative incidence of these diseases, and it is very encouraging to find that syphilis is a disease which—on the surface at least—shows a marked decline, the incidence of gonorrhœa, unfortunately, remaining about the same.

Routine blood tests carried out on all cases visiting the Hope street clinic do not altogether support this desirable end—some 30 per cent. of 1,300 consecutive and apparently non-syphilitic cases giving various degrees of positive reactions (about half strong positives and half weak positives) to the Wassermann test.

The figure 30 per cent. is most probably far too large, but if accepted it can only mean that our efforts to combat syphilis are to some extent merely changing the external manifestations of the disease—tenets held in some quarters.

The following table gives a dissection of the notifications received for the twelve months under review:—

SUMMARY OF NOTIFICATIONS.

Nature of Disease.	District.	Males.	Females.	Totals.	
Single Infections					
Gonorrhœa—					
Unspecified	Metropolitan	31	4	35	97
	Outside	56	6	62	
Acute	Metropolitan	440	98	538	717
	Outside..	144	35	179	
Sub-acute	Metropolitan	25	48	73	97
	Outside	8	16	24	
Chronic	Metropolitan	30	15	45	69
	Outside	19	5	24	
Vulvo-vaginitis	Metropolitan	..	6	6	9
	Outside	..	3	3	
Ophthalmia	Metropolitan	1	2	3	4
	Outside	..	1	1	
Syphilis—					
Unspecified	Metropolitan	..	2	2	9
	Outside	5	2	7	
Primary	Metropolitan	7	2	9	11
	Outside	1	1	2	
Secondary	Metropolitan	5	4	9	16
	Outside	6	1	7	
Tertiary	Metropolitan	8	3	11	32
	Outside	13	8	21	
Latent	Metropolitan	5	12	17	26
	Outside	6	3	9	
Neuro	Metropolitan	2	..	2	9
	Outside	6	1	7	
Congenital (heredo) ..	Metropolitan	3	1	4	18
	Outside	9	5	14	
Soft chancre	Metropolitan	1	..	1	1
	Outside..	..	..	..	
Ulcerative granuloma ..	Metropolitan	1	..	1	2
	Outside	..	1	1	
Verereal warts	Metropolitan	2	1	3	3
	Outside	..	..	..	
Double Infections.					
Gonorrhœa and—					
Syphilis (unspecified) ..	Metropolitan	1	1	2	2
	Outside	..	..	..	
Syphilis (secondary) ..	Metropolitan	..	1	1	1
	Outside	..	..	..	
Ophthalmia	Metropolitan	..	1	1	1
	Outside	..	..	..	
Venereal Warts	Metropolitan	..	1	1	1
	Outside	..	..	..	
	Metropolitan	562	201	763	1,125
	Outside	274	88	362	
	Whole State	836	289	1,125	

Sources of Notification.—Of the total notifications received 26·2 per cent. were from private practitioners, as compared with 28·4 per cent. last year. The actual figures are shown in the table:—

SOURCES OF NOTIFICATION.

Treatment Centre.	Brisbane.	Outside Areas.	Totals.
Clinics	439	173	612
Private practitioners	169	126	295
Hospitals (other than Clinics)	155	63	218
Totals	763	362	1,125

Stated Sources of Infection.—Where possible, some attempt is made to ascertain the source of the infection, and the most interesting fact revealed in the table is that the professional prostitute plays a very minor rôle in the transmission of disease—which is contrary to popular lay belief. The amateur—either the ardent erotic or the "good time" girl—is the worst offender, and rather indicates the need for greater expenditure and effort towards this class.

At the Hope street (male) clinic, every effort is made to trace and bring under treatment the source of infection. Every case is regarded not only as a patient to be cured, but also as a clue to another infection, and in this epidemiological control we have been most successful —at least forty-six stated sources of infection having been induced to have an examination and undergo treatment during the twelve months. One case in particular is illuminating. A male was referred with a suspicious sore. A dark ground test was done immediately and was positive (primary syphilis). The source of infection—three weeks previously—was found and examined, and revealed early positive lesions. Another female contact interim was induced to attend, and though showing no signs of infection at the time, was kept under strict observation, and within ten days a primary sore developed, which also was positive by dark ground examination. Thus three cases of early acute syphilis were nipped in the bud by prompt diagnosis and efficient follow-up of the sources and contacts.

STATED SOURCES OF INFECTION.

Sources ascribed to—	Area.		Totals.
	Brisbane.	Outside Areas.	
Prostitutes in houses	25	15	40
Prostitutes unknown	57	18	75
Non-professionals	338	104	442
Husbands	19	3	22
Wives	15	2	17
Parents	5	12	17
Occupational (prostitutes)	52	15	67
Gins, half-castes, &c.	..	4	4
Extra-genital (accidental)	..	..	..
Homosexuals (males)	2	..	2
Unknown or unstated	250	189	439
Totals	763	362	1,125

Defaulters.—During the twelve months there were 268 defaulters notified to the Department. Of these, 184 were traced and 175 resumed treatment. The actual number of persons defaulting is somewhat less, as these figures include patients defaulting more than once during the year.

SUMMARY.

Defaulters.	Male Clinic (Hope Street).	Other than Hope Street.		State Totals.		
	Males.	M.	F.	M.	F.	M. F.
Notified	215	30	23	245	23	268
Resuming treatment	137	17	21	154	21	175
Not located	71	6	2	77	2	79
Enquiries continuing	..	5	..	5	..	5
Left the State	7	2	..	9	..	9

CLINICS.

Facilities for treatment are provided by two centres (one male and one female) *ad hoc* in Brisbane. Also where such centres are not available each subsidised public hospital in the State is required to treat any case applying for treatment, and certain of the larger country hospitals have more or less elementary clinic facilities attached.

Male Clinic, Brisbane (Hope Street).—This is virtually a continuous clinic, with three sessions daily. It has been a great disappointment that work was not commenced this year on the new clinic approved last year and illustrated in the Annual Report, as the cramped space and lack of adequate facilities in the present treatment place make efficient work along modern lines impossible.

Treatment of venereal disease may be divided into three periods:—(1) The pre-war period, when it was treated mostly with contempt; (2) The war and early post-war period, when treatment was in the experimental stage, and largely of a first-aid and symptomatic nature; and (3) The modern period, when competent venereology requires a wide knowledge of medicine and surgery and specialised equipment. No venereal disease clinic of the future will be modern in its excellence unless competent investigation in the realms of urology, dermatology, pathology, psychology, and general medicine (especially nervous and cardio-vascular diseases) can be carried out.

Our present state is the transition period from the post-war to the modern period, and where further progress is dependent upon more adequate accommodation and facilities which the proposed new venereal block will give us. It is confidently hoped that work will be commenced on this in the near future.

The unfortunate accident which befel "Jim," the popular attendant at Hope street for so many years, is much regretted. His unobtrusive efficiency has been a big factor in the effective working of the male clinic, and it is hoped he will have a speedy recovery and return to duty.

An abbreviated summary of the male clinic operations, with corresponding figures for the previous few years, is shown in the following table:—

—	1935-36.	1934-35.	1933-34.	1932-33.	1931-32.
Consultations (M.O.)	9,390	10,827	10,795	10,826	10,388
New cases	680	659	674	783	756
Notified (venereal)	384	367	407	440	434
Blood specimens for W.R.	1,224	1,510	1,535	828	731
Blood specimens for Klein trt.	1,224	1,510	1,535	..	..
Blood specimens for C.D. (Gon.)	446	445	423	485	457
Dark ground examinations	10	19	33	40	40
Smears (for grams. stain)	2,331	2,008	2,041	2,315	2,423
"914" administered	541	1,288	1,140	927	912
Bismuth administered	807	1,311	1,338	1,297	1,464
Prescriptions dispensed	1,274	1,377	1,829	1,797	2,475
Seamen's cards issued	4	3	6	7	8

Of the 680 new patients at the male clinic who reported for examination during the year, 384 were diagnosed as suffering from venereal disease, as follows:—

Disease.	Notification at Clinic.	Notification elsewhere.	Totals.
Acute Gonorrhœa	329	13	342
Sub. Acute Gonorrhœa	9	..	9
Chronic Gonorrhœa	16	3	19
Primary Syphilis	4	..	4
Secondary Syphilis	1	2	3
Tertiary Syphilis	1	..	1
Latent Syphilis	1	..	1
Neuro Syphilis	2	..	2
Venereal Warts	1	..	1
Congenital Syphilis	1	..	1
Acute Gonorrhœa and Primary Syphilis	1	..	1
Totals	366	18	384

At the end of the fiscal year under review there were 353 patients attending the clinic, as compared with 389 at 30th June, 1935, and for purposes of comparison a statement covering a five-yearly period is appended:—

SUMMARY OF DIAGNOSES.

Nature of Disease.	1935-36.	1934-35.	1933-34.	1932-33.	1931-32.
Gonorrhœa	197	189	197	212	188
Syphilis (all stages)	93	118	140	135	125
Gonorrhœa and Syphilis	6	31	42	25	26
Venereal Warts	..	1	1	3	2
Venereal Warts and Syphilis	..	1	1	..	..
Indefinite	11	18	10	19	..
Other Genital Conditions	28	8	13	29	..
Undiagnosed at date of report	18	23	30	11	88
Totals	353	389	434	434	429
Actual Venereal Cases	296	340	381	375	341

Female Clinic, Brisbane (William street).—This place is open on two afternoons and two nights during the week, making four sessions weekly. Patients are attended and treated by a part-time female medical officer, and much good work is being done. The clinic has the advantage of being centrally situated yet quiet, and attendances are being well maintained. Also being under the immediate control of the Department, the necessary follow-up and control work can be more effectively supervised.

A short summary of operations, with some figures for previous years, is shown:—

——	1935-36.	1934-35.	1933-34.	1932-33.	1931-32.	1931-32.
Consultations (Medical Officer)	1,857	1,492	2,351	2,103	1,472	..
New Cases	135	115	142	147	83	98
Notified (Venereal)	81	50	73	77	65	38
"914" administered	291	260	515	370	137	..
Bismuth administered ..	310	321	407	404	148	..
Local Treatments	1,244	937	1,396	1,464	854	..

Prostitutes.—As a result of periodic examinations of some known prostitutes, those found infected are isolated and treated till apparently free of infection. The following table gives the numbers, with some figures for previous years:—

Year.	Metropolis.		Outside Metropolis.	
	Examined.	Detained.	Examined.	Detained.
1935–36	465	55	850	35
1934–35	524	46	826	32
1933–34	665	54	713	33
1932–33	637	72	716	25
1931–32	845	68	956	34
1930–31	892	71	944	34

It will be seen from the table that the number of prostitutes being examined in the metropolis is steadily declining, and this is in accord with the known fact that there are fewer "houses" in existence in Brisbane. However, as pointed out elsewhere, the "amateur" source of infection is increasing, and probably the greater facilities for promiscuity in this direction have caused a depletion in the ranks of the "professional."

General Remarks.

A report of the year's activities would be incomplete without some mention of certain difficulties which have arisen from time to time. In view of the pending reorganisation of health matters generally, when certain shortcomings and anomalies will be corrected, it is timely to mention the adverse effect of some of these.

Firstly, the complete lack of privacy due to cramped space at Hope street, whereby patients are deprived both of confidential interviews with the Medical Officer and even of decent privacy during treatment, has been a serious handicap. A not inconsiderable number of patients refuse to attend on account of this, and as they often cannot afford private treatment they become chronic cases and carriers. The more commodious premises to be provided in the new clinic will obviate this trouble.

Secondly, the absence of any propaganda through suitable notices in public conveniences &c.—as is done in other cities—whereby sufferers can find the clinics without having to ask questions of other people, has resulted in several instances in a good deal of delay in seeking early treatment.

Thirdly, the proximity of Brisbane to the northern New South Wales towns makes default in treatment an easy matter for that type of patient who discontinues treatment as soon as the acute phase passes.

If yearly conferences beween officers of the various State Health Departments could be held, then it would be an easy matter to devise some uniform system of notification and follow up which could then be made reciprocal as between the States. At such conferences also the newer trends in treatment could be discussed and the various clinics would know more of each other's routine. Moreover, the saving in expense by the pooling of experiences with different new preparations, and various other aspects, would more than cover the small expense of such conferences.

The report of the Director-General of Public Health in New South Wales, just to hand, and referring to venereal disease, contains somewhat similar suggestions, viz.:—

"A board, consisting of one member from each State and from the Commonwealth Health Department, should meet at least twice in each year in a capital city in rotation, and confer on methods of administration and treatment. This would contribute towards united and uniform action within the Commonwealth of Australia, and should certainly have a decided influence on the control of venereal disease."

LABORATORY OF MICROBIOLOGY AND PATHOLOGY.

E. H. DERRICK, M.D., Director.

In October, 1935, the laboratory was moved from the Old Police Court in Hope street, South Brisbane, where it had been situated for seventeen (17) years, to the new building of the Health and Home Affairs Department, William street. The change over has been welcome for the new quarters are more commodious, better lighted, and better ventilated than the old ones, as well as being more centrally situated in the city and in touch with other Government activities. During the year the laboratory was fortunately able by means of a special grant to improve the apparatus, especially by the purchase of three new and modern microscopes. It is hoped to bring the apparatus fully up to date in the coming year.

The staff has remained unchanged in numbers. It has given splendid service during the year.

During the year the laboratory has continued to perform routine microbiological and pathological work for Government departments, private practitioners, and hospitals.

The total number of examinations made was 78,450, compared to 78,674 for the previous year.

The figures for the different items are given in the table.

In June, 1935, the performance of post-mortem examinations for the Coroner was taken over by the Director of the laboratory, and in the thirteen months since 275 of them have been made. It has been decided that from 1st July, 1936, no claims for payment for these services will be made on the Department of Justice.

Another extension of the work has been the examination of tissue sections for diagnosis, one hundred and twenty-six (126) of these having been examined during the year.

No. 1.—Examination of Material for Infectious Diseases.

——	Health and Hospitals.	Private Doctors.	Pos.	Total.
Diphtheria—				
Cultures	9,379	1,972	1,245	11,351
Direct smears	..	29	3	29
Virulence tests	117	21	40	138
Gonorrhœa—				
Smears	7,146	621	958	7,767
Blood, complement deviation	608	93	252	701
Culture	..	1	..	1
Urine	1	..	..	1
Syphilis—				
Blood—				
W.R. reaction	2,127	437	961	2,564
Kline test	1,228	97	628	1,325
C.S. Fluid—W.R. reaction	33	4	18	37
Serum—Treponema pallidum	12	12	3	24
Tuberculosis—				
Sputum	226	183	93	409
Pleural fluid	3	..	..	3
Joint fluid	2	..	..	2
Urine	9	..	..	9
Human milk	1	..	..	1
Liver	1	..	..	1
Bone cavity tissue	1	..	..	1
Guinea-pig inoculation	7	..	..	7

No. 1.—Examination of Material for Infectious Diseases—*continued.*

—	Health and Hospitals.	Private Doctors.	Pos.	Total.
Leprosy—				
Smears (human)	1,051	80	141	1,131
Rats	31	..	31	31
Typhoid and Paratyphoid—				
Blood (agglutinations)	70	29	5	99
Urine	38	22	1	60
Fæces	49	26	2	75
Blood Culture	6	..	..	6
Dysentery—				
Fæces	..	2	..	2
Typhus—				
Blood	17	10	3	27
Vincent's Angina—				
Smears	..	14	3	14
Scarlet Fever—				
Cultures	189	..	131	189
Pneumococcus—				
Pleural fluid	..	1	..	1
Smears	..	2	..	2
Antinomycosis—				
Smears	1	2	..	3
Leptospirosis—				
Blood—				
Agglutinations	5	..	..	5
Culture	1	..	..	1
Pfeiffer's phenomenon	1	..	..	1
Urine	16	2	..	18
Liver	2	11	..	3
Spleen	..	1	..	1
Guinea-pig inoculations	7	..	..	7
Water	29	..	..	29
Undulant Fever—				
Blood agglutination	17	3	..	20
Pseudomonas Aeruginosa—				
Blood agglutination	7	1	..	8
Meningitis—				
Cultures (post-nasal)	10	..	..	10
C.S. fluid	1	..	..	1
Malaria—				
Blood	11	2	2	13
Amœbæ—				
Fæces	..	12	..	12
Trichomonas Vaginalis—				
Smears	2	..	..	2
Fungus infections	4	..	..	4
Filaria—				
Blood	2	1	..	3
Hydatids—				
Sputum	..	1	..	1
Fæces (canis)	..	1	..	1
Liver	1	..	1	1
Various Organisms—				
Blood agglutination	10	..	..	10
Sputum	3	4	1	7
Pleural fluid	2	..	..	2
Urine	9	10	..	19
Blood smears	2	1	..	3
Blood cultures	2	..	..	2
Cultures	6	..	..	6
Pus	3	1	..	4
C.S. fluid	2	..	..	2
Tissue	1	..	..	1
Milk	2	..	..	2
Totals	22,511	3,699	4,522	26,210

No. 2 Pathological Examination.

—	Health and Hospitals.	Private Doctors.	Pos.	Total.
Blood—				
Microscopical examination	15	16	..	31
Basophilia	14	3	..	17
Full count	1	6		7
Differential count	13	27	..	40
Hæmoglobin	3	..	..	3
Typing	3	..	..	3
Urea	11	1	..	12
Cerebrospinal Fluid—				
Colloidal Gold Curve	7	..	..	7
Cells	5	..	..	5
Globulin	3	..	..	3
Abnormalities	3	..	..	3
Urine—				
Microscopical examination	36	24	..	60
Chemical examination	8	10	..	18
Blood	1	2	..	3
Urea Estimation	88	7	..	95
Mouth Fluid	..	1	..	1
Fæces—				
Occult Blood	4	3	..	7
Microscopical examination	3	..	..	3
Intestinal worms	914	18	131	932
Worms (Annelida)	3	..	..	3
Fleas	890	..	..	890
Other insects	3	..	..	3
Fluid from lung	1	..	..	1
Smears	2	..	..	2
Tissue—				
Section	43	37	..	80
Section (Post mortem)	23	..	..	23
	2,097	155	131	2,252

The ecto-parasites removed from rats by the Brisbane City Council and submitted for identification were classified as follows:—

Xenopsylla cheopis	427
Leptopsylla musculi	435
Ctenocephalus felis	2
Liponyssus bacoti	4
Pediculus (lice)	22

No. 3. Foods, Waters, &c.

Water—	
Bacterial count	86
Colon bacilli	86
Leptospiræ	25
Pseudomonas aeruginosa	2
Earth samples—	
Leptospiræ	3
Milk—	
Bacterial count	1,137
Brucella abortus	1
Streptococci	3
Various organisms	1
M. tuberculosis	6
Blood	2
Goat's milk—	
Bacterial count	2
Ice cream—	
Bacterial count	28
Oysters—	
Bacterial count	2
Colon bacilli	2
Bread—	
Rope	3
Pickled pork—	
Food poisoning	1
Salmon—	
Food poisoning	2
Total	1,392

No. 4. Various Materials.

Disinfectants—	
Co-efficient	9
Bottles—	
Sterility	5
Filter—	
Efficiency	1
	15

No. 5. Special Investigations.

Urine culture	1
Guinea-pig agglutination	29
Rabbit agglutination	26
Rat agglutination	20
Guinea-pig inoculation	324
Rabbit inoculation	9
Mouse inoculation	11
Ticks	7
Animal tissue for section	23
Rats—Post mortem	74
Rats—Leptospiræ	63
Total	587

No. 6. Medico-legal.

Post-mortem examinations	252
Blood—	
Clothing and shoes	45
Various articles	28
Seminal stains—	
Clothing	41
Various articles	3
Spermatozoa—	
Smears	20
Gonorrhœa—	
Smears	4
Bones	5
Hair	8
Baby's head	1
Attendances at courts—	
Supreme court	17
Police court	25
Coroner's court	12
Industrial court	1
Total	462

No. 7. Vaccines Prepared.

——.	Health and Hospitals.	Private Doctors.	Total.
Urethral discharge	..	1	1
Urine	..	4	4
Cultures	9	9	18
Sputum	2	1	3
Fæces	1	5	6
Pus	..	1	1
Nasal swabs	..	2	2
	12	23	35

No. 8. Examination of Rodents for Plague.

Rodents received for examination from Brisbane City Council:—

Rattus norvegicus	24,125
Rattus rattus rattus	3,309
Rattus rattus alexandrinus	6,415
Hydromys leucogaster	9
Mus musculus	1,587
Unclassified (very young rats)	4,402
	39,847

(In addition to these, 7,271 rats and 889 mice were destroyed by the Brisbane City Council without examination.)

Rat smears received from other centres:—

Mackay	168
Bundaberg	854
Maryborough	886
Gympie	524
Ipswich	1,554
Sandgate	1,333
Wynnum	1,168
Meat works (Brisbane area)	1,163
	7,650

No rat was found infected with *Pasteurella pestis*.

Grand total of examinations for year 1935-36, 78,450.

Material Supplied.

Five hundred and thirty-eight (538) requisitions were supplied during the year to hospitals, private practitioners, and local authorities, consisting of 24,059 swabs, 23,512 cultures, 1,197 Wright's capsules, 102 blood phials, 1,431 glass slides, 250 fæces tins, 86 urine bottles, 68 sterile water bottles, 8 agar slopes, 13 tubes of sugar, 1 bottle of broth, 6 bottles of 3 per cent. alepol, 10 c.c.s Giemsa blood stain, 8 c.c.s of T.A.B. Vaccine, and 166 c.c.s of Anterior Poliomyelitis Serum.

Culture Media Prepared.

	Number of tubes.
Serum cultures—	
Ox serum slopes	23,429
Bottles	12
Human serum plates	101
Ordinary Broth—	
Small tubes	786
Bottles	14
Large tubes (disinfectant)	487 (700 c.cs.)
Ordinary Agar—	
Small slopes	805
Large slopes	193
Sugars—	
Lactose	505
Glucose	256
Saccharose	166
Salacin	164
Glycerine	167
Sorbite	105
Arabinose	54
Dulcite	109
Adonite	28
Maltose	112
Mannite	61
Xylose	57
Inosite	179
Amygdalin	59
Lævulose	58
Other tubes and plates—	
Treble Lactose (tubes)	41
Endo's Medium for E. coli (plates)	270
Methyl Red Medium (tubes)	158
Peptone Water for Indol (tubes)	174
Medium for Voges-Proskauer Reaction (tubes)	215
Sod. Citrate Medium (tubes)	190
Litmus Milk (tubes)	62
McConkey's Medium (plates)	599
Lead Acetate Agar (stabs)	44
Lead Acetate Agar (plates)	4
Blood Agar (plates)	126
Gelatin (tubes)	30
Nitrate Reduction Medium (tubes)	44
Fletcher's Medium for Leptospira (tubes)	40
Schuffner's Medium for Leptospira (tubes)	40
Brown's Medium for Leptospira (tubes)	60
Vervoort's Medium for Leptospira (tubes)	60
	30,064
Material in bulk—	
Agar (for count purposes)	46 litres.
Lemco Broth	10.5 litres.
Alepol 6 per cent. solution	750 c.cs.
Alepol 3 per cent. solution	980 c.cs.
Kaiserling solutions No. 1	66 litres.
Kaiserling solutions No. 11	120 litres.

Special Investigations.

In addition to the routine work, a beginning was made with a special investigation into the fevers of doubtful causation occurring in and around Brisbane. Fevers of about one or two weeks' duration occur from time to time, especially on the outskirts of the city. They often resemble typhoid fever clinically, but the specific tests for typhoid are negative. True typhoid also occurs in Brisbane, there being about fifteen (15) cases annually. A few cases of endemic typhus occur.

Paratyphoid, typhus, undulant fever, and Weil's disease have received special consideration. As two of these are associated with rats, some work has been done to ascertain what transferable diseases are present in the local rats.

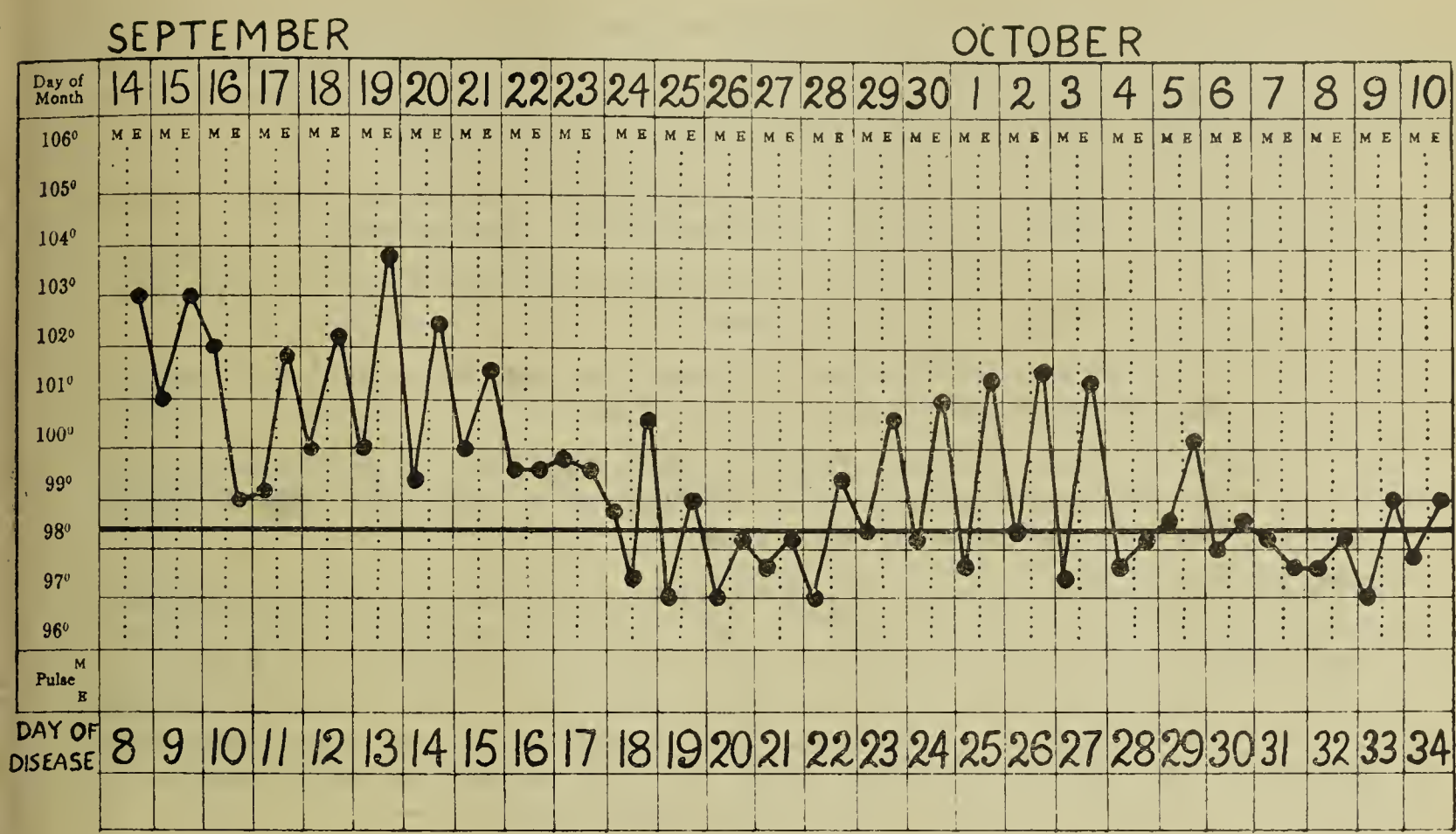
A Hitherto Undescribed Type of Fever Occurring in Brisbane.

There occur along the Queensland coast cases of fever which have been called in general "coastal fever" and in certain places by locality names. Half-a-dozen different types are included under these names, and gradually they are being sorted out. Most of these cases occur in North Queensland. However, since 1933 medical practitioners have noticed in Brisbane cases of fever with certain distinctive features, and they believe them to represent a clinical entity. As the earlier cases to be studied were in abattoir workers the fever was currently called "abattoir fever." Later knowledge has shown that it is not confined to the abattoirs, so this name becomes inaccurate, and like other locality names, may now be discarded.

Incidence.—The approximate number of cases has been:—1933, 6; 1934, 9; 1935, 11; 1936 (six months), 3.

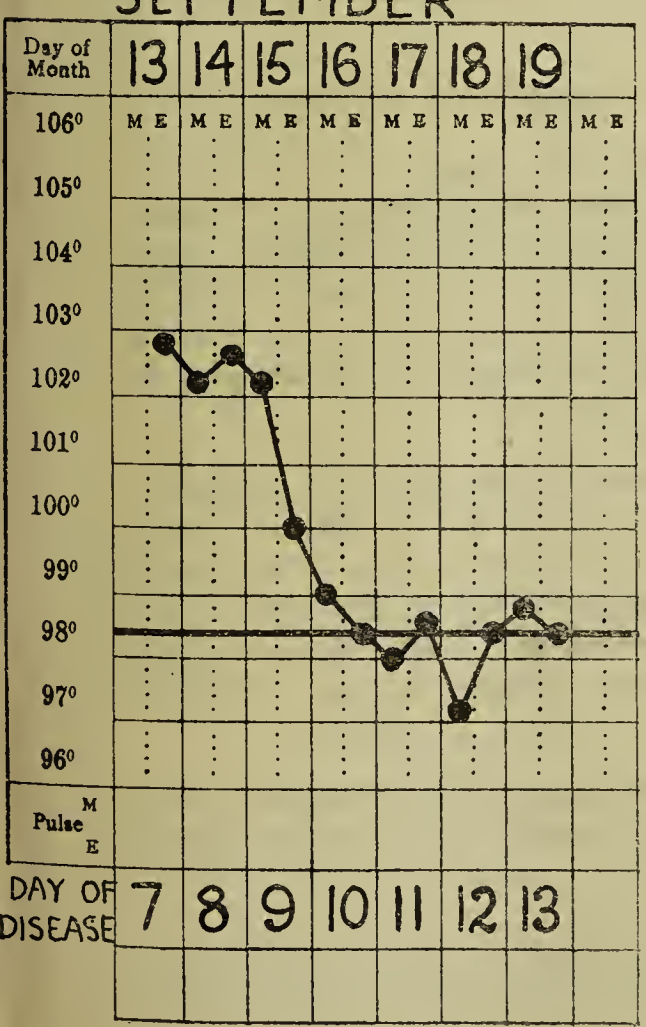
Cases have occurred in workers from nearly every part of the abattoirs, the highest incidence being among meat inspectors and in the tank house.

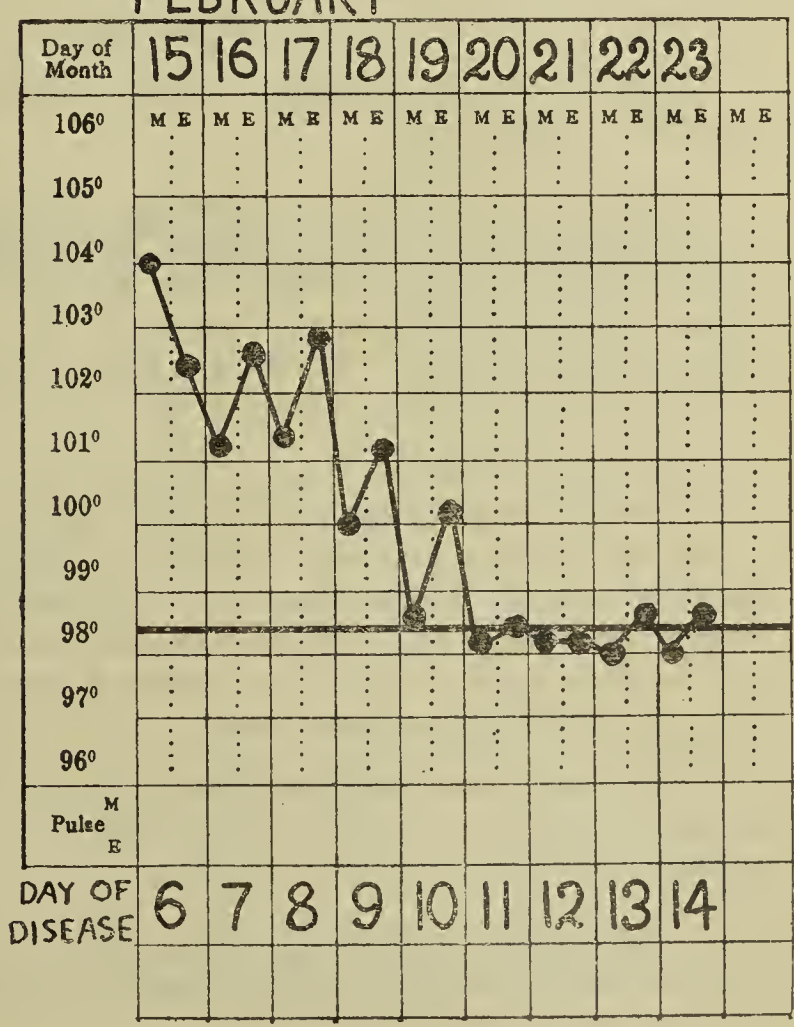
There is no particular seasonal incidence.



Short Period Fever with Relapse.

Short Period Fever Charts Showing Ending by Crisis and Rapid Lysis.





Fevers of uncertain nature occur in Brisbane apart from the abattoirs. In the last four years there have been twenty-four such cases treated at the General Hospital. Ten of the twenty-four patients were farm workers, and three more were from the country, all thirteen being males. The city cases included females as well as males.

Clinical Features.—The fever lasts seven to twenty-four days, the temperature reaching 103 to 105 deg. Fahr. The onset is acute. The fever may be of three types:—

(1) A short type lasting seven to eleven days, ending with a crisis or rapid lysis, and resembling the fever of typhus.

(2) A typhoid type lasting seventeen to twenty-four days, ending by lysis. Clinically these cases strongly resemble typhoid.

(3) Several cases have had definite relapses, with three to seven afebrile days between, suggesting undulant fever. One case of fever in an abattoir worker has been regarded as undulant fever.

Shivers and sweats are common. The pulse is slow in comparison with the temperature. Headache is present in nearly every case. It may be severe and persistent, and is often the chief complaint. Pains in back and limbs occur frequently. Constipation is the rule. A rash is rare. Jaundice occurred in one case. The leucocyte count tends to be low. Patients are often quite ill, but no fatal case is known. Convalescence may be slow, many complaining of weakness for some time after resuming work The time off work has varied from ten to sixty days, the average in fourteen cases being twenty-five days.

Specific Diagnosis.—Guinea-pigs are easily infected by injection of blood from human patients or blood or liver from infected guinea-pigs. After an incubation period of four to eighteen days they develop a fever of one to six days' duration, the temperature on an average reaching 105·4 deg.

One attack of the fever in a guinea-pig confers immunity. This immunity provides a specific test for its diagnosis. Blood is taken from a patient during the fever and injected equally into two guinea-pigs, one new and one immune. A typical febrile response in the first and no fever in the second would be a positive result. The test promises to be valuable, but has not been used in many cases yet. A point to be remembered is that with a small infecting dose the infection in the susceptible guinea-pig may be inapparent and require a further passage to become obvious.

The test has proved of great help in studying the disease and for retrospective diagnosis, but the time it takes greatly limits its clinical value. By it, it has been shown that in six cases of fever in abattoir workers the infecting agent is identical. This confirms the clinical impression that this fever is a definite entity.

The Nature of This Fever Type.—All attempts so far to correlate it with known fevers have been unsuccessful.

Blood cultures have been negative. Agglutination tests have been negative for typhoid, paratyphoid, typhus, and pyocyaneus fevers, and (except in one case) for undulant fever. Leptospiræ have not been found, nor have infected guinea-pigs shown any sign of Weil's disease. This fever does not appear to be related to any of the commoner diseases of the abattoir animals. We have not been able to reproduce the disease in guinea-pigs by injections of blood or liver from series of cattle, sheep, pigs, and rats.

The prevalence of *Brucella abortus* in Queensland cattle and the special incidence of undulant fever in slaughtermen in other countries caused the organism to be examined closely. A case of probable undulant fever in an abattoir worker is at present (July 1936) under treatment in the General Hospital. The charts of other cases of fever in abattoir workers suggest that undulant fever is responsible for a small proportion. But the new fever is not undulant fever, for the two fevers in guinea-pigs run quite different courses, and there is no cross-immunity between them.

The new fever type has many points of analogy with typhus, but it appears to be distinct, for in it a rash is exceptional, and the Weil-Felix reaction has been constantly negative.

The failure of the infecting agent to grow on ordinary media, and its invisibility on microscopical examination suggest that it belongs to the viruses. Filtration experiments have, however, so far been indefinite.

A Case, Probably Undulant Fever.

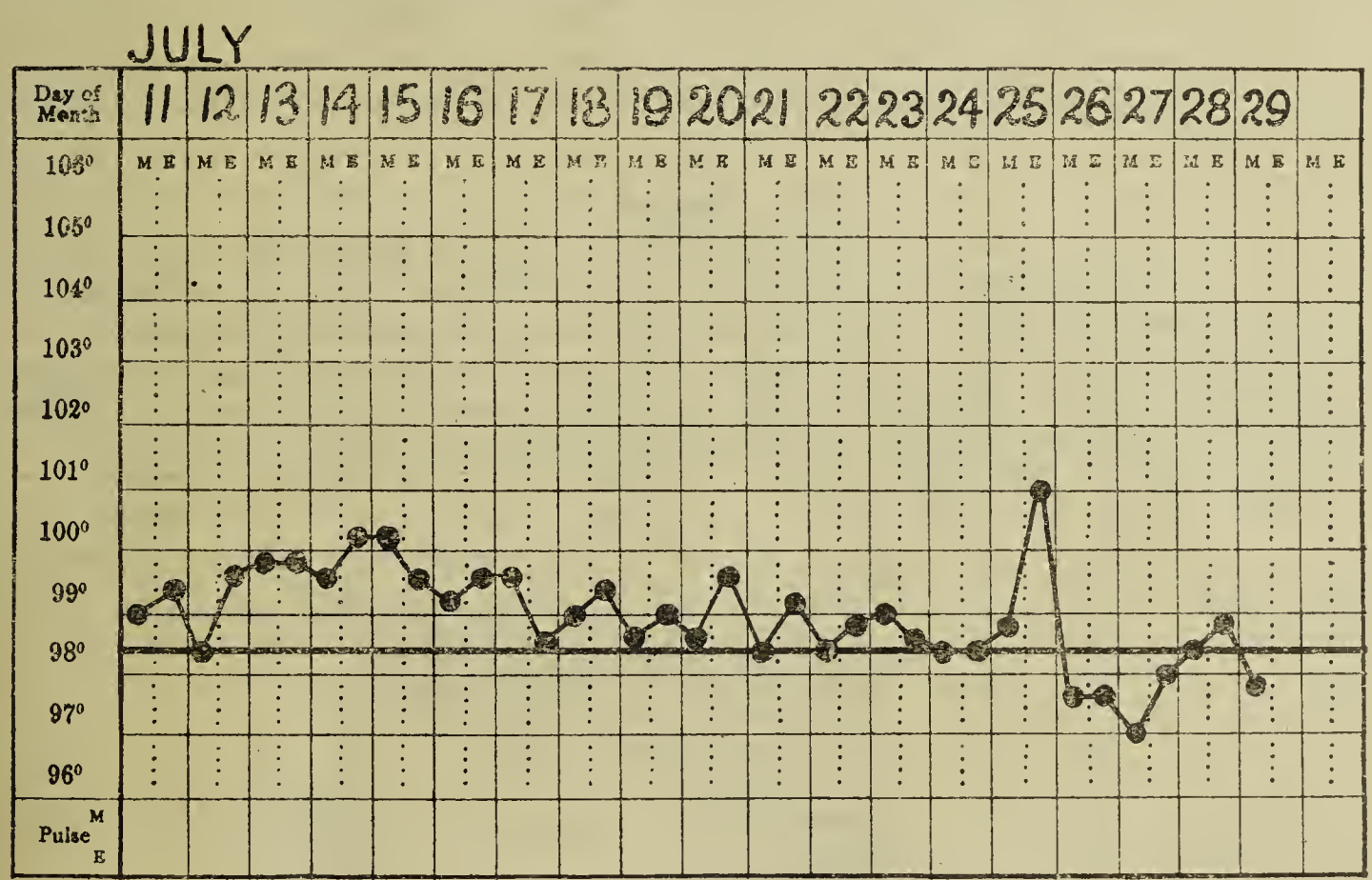
J.P.K., employed on beef casings at the abattoirs, was admitted to hospital 11th July, 1936. He complained that he had not been well for a month, but had continued at work till the previous day. The symptoms were shivers and sweats at night, headache and constipation. There was no diarrhœa at any time. The appetite was good all through, and as he lay in bed he felt well. A blood sample was taken on 14th July. The serum completely agglutinated *Brucella abortus* in a dilution of 1/640.

Two c.c. of citrated blood were injected into each of a pair of guinea-pigs. Another sample of blood taken on 27th July agglutinated the *Brucella abortus* in the same dilution. This titre of agglutination, taken in conjunction with the mild, chronic nature of the illness, renders the diagnosis of undulant fever probable. It should also be mentioned that this patient's serum tested in another laboratory agglutinated *Salmonella schottmuelleri* to a titre of 1/80. This was presumably non-specific. It did not agglutinate this laboratory's three strains of *S. schottmuelleri* nor the other test organisms. The temperature chart is appended. It resembles exactly that of another abattoir worker who was ill in November, 1935, and is quite different from the average "abattoir fever" charts. The patient was discharged on 29th July.

The notes of this case are given by courtesy of Drs. A. Murphy and A. Pye.

The guinea-pigs inoculated with blood from the patient have in one month shown no sign of brucellosis.

The strong agglutination of the patient's serum showed that he had been in contact with the *Brucella abortus*. It renders it probable, but does not prove, that this illness was due to active infection with the organism.



Undulant Fever. J.P.K.

In this connection, Huddleson "Brucella Infection in Animals and Man," page 51, states:—

"A positive test, even in a high dilution in blood serum from humans, is not always proof of active infection. Many individuals have Brucella agglutinins in their blood from a past infection or from recent exposure to infective materials. This is especially true of veterinarians, packing-house workers, and breeders of live stock. As a rule, a high agglutinin titre, 1:500 and above, is evidence of active infection. One should rely as much upon the history of the case and other confirmatory tests as the agglutination test in detecting active Brucella infection in human beings."

Rat Diseases.

During the year an investigation of the diseases of wild rats in and around Brisbane was begun.

Seventy-four (74) rats were examined in this series, 16 were brought to the laboratory alive and were killed at the time of examination, the others had been dead a variable time. A post-mortem examination was made, blood was collected to test for *Proteus* X agglutinins, kidney or liver emulsions were made and examined for leptospiræ by dark-ground illumination, an emulsion of brain, liver, and kidney was made and injected into guinea-pigs. Each guinea-pig was as a rule injected with the organs of several rats.

No leptospiræ were seen in 26 livers and 61 kidneys of 63 rats, nor did any injected guinea-pigs die of leptospirosis. The search for *Proteus X* agglutinins was disappointing. It was as a rule impossible to get a satisfactory sample of serum from the dead rats, and the series of live rats is too small to discuss the results. No clear case of typhus developed in the injected guinea-pigs.

Material from 63 rats was injected intraperitoneally into 20 guinea-pigs. Four of these died within two days with general peritonitis. One died from streptococcal infection nine days after injection. Three ran irregular temperatures from undetermined causes and recovered. Eleven guinea-pigs remained well. Eight of these were killed on the fourteenth day and a liver emulsion injected into another pig to determine if they had perhaps acquired from the rats an inapparent infection that might increase in virulence with passage. No such result was obtained.

The most striking result from the guinea-pig inoculations was the development of *rat-bite fever* in one of them. This is a reminder that rat-bite fever is prevalent everywhere among rats, and human cases are liable to occur in Brisbane and elsewhere. Enquiry brought to light the history of two cases in children following rat-bites, one in Brisbane n 1924, and one in Ingham in 1936. No doubt there have been others. This infected guinea-pig provided an opportunity to study the *Spirillum minus* and its effect on laboratory animals. A report of this work will shortly be published in the "Medical Journal of Australia."

Rat trypanosomes were noticed in the liver or kidney emulsions in ten of the 63 rats. The liver worm, *Hepaticola hepatica,* was noticed in eight. Rat leprosy was not seen in any rat of this series.

Weil's Disease.

During the year a special watch was kept for cases of Weil's disease in Brisbane. Four suspicious cases were investigated by examination of the blood, urine, or liver for leptospiræ. In none were they found either by dark-ground examination or by guinea-pig inoculation. In all these cases jaundice was a prominent symptom. The urine of two other patients reported to have had Weil's disease previously in the North were tested for the presence of living leptospiræ. These also were negative. Particulars of the cases are given in the table.

Patient.	Sex.	Age.	Tests.	Final Diagnosis.
E. O., sewer worker ..	Male ..	27	Blood 8th day, guinea-pig inoculation Blood 11th day, guinea-pig inoculation Urine 11th day, guinea-pig inoculation Urine 18th day, guinea-pig inoculation Urine 18th day, dark-ground .. .. Serum agglutination, 18th day	Infective jaundice
E. S., schoolgirl	Female	7	Liver dark-ground .. .. .. Liver, guinea-pig inoculation	Hydatids of liver
W. M., farmer's wife ..	Female	46	Urine, dark-ground .. .. .. Urine, guinea-pig inoculation ..	Not made.
B. J., housewife	Female	52	Liver, guinea-pig inoculation	Acute haemolytic anaemia
S. D.	Male ..	..	Urine, dark-ground .. .. .. Urine, guinea-pig inoculation ..	Convalescent from Weil's disease
C.	Male ..	..	Urine, dark-ground .. .. .. Urine, guinea-pig inoculation	Weil's disease 18 months before

The notes of the first patient, who was examined by the courtesy of Dr. P. J. Kelly, may be given in more detail. E.O., male, aged twenty-seven, had been employed for seven months cleaning sewers. He had been working in one particular storm water sewer for a fortnight when he became ill with pains in the abdomen and vomiting. A severe headache followed and pains all over. On the sixth day jaundice came on. There was bleeding from the nose and a

hæmorrhagic bleb on a finger. On the eleventh day he was admitted to hospital. His temperature was raised early in the illness but after admission to hospital neither the temperature nor the pulse rate were raised. He was quite ill at the time of admission but gradually improved and was discharged about the twenty-sixth day. He was still faintly jaundiced then but otherwise well. Jaundice occurring in a sewer worker was naturally regarded as highly suspicious of Weil's disease, but as all the tests for the latter were negative the final diagnosis was "infective jaundice of unknown cause."

In addition to these, fifteen cases of fever of unknown origin without jaundice were investigated by guinea-pig inoculation of blood, urine, or liver. None of these showed evidence of leptospiræ.

A number of samples of water taken in different parts of Brisbane were examined by dark-ground illumination for leptospiræ. Leptospiræ morphologically similar to the *L. icterohæmorrhagiæ* were found in slime in samples taken from the Brisbane River, one of the creeks, the storm water sewer in which E.O. was working, and the floor of a meatworks. They were also grown from Brisbane tap water by Hindle's fæcal culture method. None of those found were pathogenic to guinea-pigs and they were therefore *L. biflexa*.

As already mentioned, a series of wild rats has been examined for leptospiræ without result. So far as this work has gone therefore, there is no evidence of the presence of the organism of Weil's disease in Brisbane, in man, in rat, or in water.

Rat Leprosy.

A small proportion of the rats examined for plague are found to have rat leprosy. The cases are recognised by the mangy appearance of the skin, and the infiltration and thickening, diffuse or nodular, of the underlying subcutaneous tissues. The diagnosis has been confirmed in all cases by the finding of acid-fast bacilli. It is remarkable how numerous the bacilli may be in cases where the naked eye signs are slight. Recognition of this fact has led to the regular search for bacilli in cases only mildly suspicious to the naked eye, and so to the detection of more and more early cases of Leprosy. Thus the proportion of rats found to be leprous has risen from 0·005 per cent. in 1926-27 to 0·08 in 1935-36. The table shows the numbers found in Brisbane during each of the last ten years. The table also shows for comparison the proportion of rats found infected in some other Australian centres. As with human leprosy the incidence becomes higher as the latitude becomes lower.

A noteworthy point among our cases in that two of them belonged to the subspecies *Rattus rattus alexandrinus*. The other 127 of ours, as well as all other published Australian examples, have been in the *Rattus norvegicus*. All the leprous rats have been adult.

Another important point is the existence of foci of infection. About a third of our cases have come from one particular block in the centre of the city. Underneath this block is an old disused sewer. There is another but less marked endemic focus in the market area.

Table showing proportion of rats infected with leprosy in Brisbane and other places.

Place.	Date.	Authority.	Number of rats examined.	Number of leprous rats.	% of rats affected.	% of *R. norvegicus* affected.
Brisbane	1926–27 ..	..	38,205	2	0·005	..
	1927–28 ..	..	44,337	10	0·02	..
	1928–29 ..	..	46,259	10	0·02	..
	1929–30 ..	..	38,136	6	0·02	..
	1930–31 ..	..	26,999	8 (1Ra)	0·03	..
	1931–32 ..	..	17,563	5	0·03	0·05
	1932–33 ..	..	24,527	14	0·06	0·08
	1933–34 ..	..	34,984	21	0·06	0·09
	1934–35 ..	..	39,144	22 (1Ra)	0·06	0·08
	1935–36 ..	..	38,260	31	0·08	0·13
	1926–1936	..	348,414	129	0·04	..
Sydney	1904–12 ..	Cleland	500,000	5	0·001	..
Rockhampton ..	1924–27 ..	Richards	11,935	73	0·61	..
	1929–31 ..	Cilento and North ..	7,504	16	0·21	0·35
Townsville	1913 ..	Priestly	220	12	5·45	..
	1925–27 ..	Fielding	2,434 (930 R.n.)	11	0·45	1·18

Sanitation.

The following is an outline of the work accomplished by the sanitary inspection staff for the year ending 30th June, 1936.

It is pleasing to note the steady advance in sanitation throughout the State, particularly in sewerage and drainage works, which must result in better conditions for the residents in the centres concerned

Complete sewerage schemes for the undermentioned centres have been prepared and in some instances have been started:—Rockhampton, Maryborough, Townsville, Quilpie, and Cunnamulla. The scheme for Mackay is now completed.

The rising township of Monto, on the advice of the Department and through the Council's foresight, overcame its drainage problem by the construction of a deep drainage scheme and treatment area. The work is completed and when the premises are all connected up previously existing nuisances will be permanently abated.

It is gratifying to note that these remoter towns are recognising the necessity for drainage schemes.

Inspectors attached to Local Authorities' areas are keen in the performance of their duties and they are proving of much assistance in health administration. The monthly reports which they are required to submit are carefully perused, and where necessary advice, criticism, or instruction are given on consequential matters.

Sanitary services throughout the State have received attention and, with few exceptions, such services have been efficiently carried out.

Keeping in mind the ever-present danger of fly-borne disease, the Department continues to insist on the installation of the standard cabinet panstead for closets, which apparatus is designed and constructed so as to be flyproof and thereby to eliminate that risk.

Inspectorial work has been carried out by headquarters staff as follows:—

Inspections	1,929
Official calls	131
Nuisances	100
Sanitary depots	16
Refuse tips	17
Towns visited by Head Office Staff	90

At Cherbourg Aboriginal Settlement trouble was being met with in respect to drainage. A visit was paid, advice given, and a comprehensive report and recommendation submitted. It is understood the project was approved and has been placed in the hands of the Department of Public Works for completion.

At the request of the Bundaberg City Council a visit was paid to that city in regard to sanitary matters Certain suggestions were made which were embodied in a report.

At the request of certain persons who objected to a site proposed for a new piggery at Cooroy, a visit was paid to that town. The site was inspected and it was requested that a further area be purchased to permit the establishment to be constructed away from the creek. A further visit was paid after it was established and it was found free from nuisance.

As the result of a drainage nuisance Goomeri was visited and the necessary recommendations for its abatement made.

Gympie was visited mainly in respect of drainage matters. The foresight of the council in constructing drainage works through the main portion of the city and from the hospital, is noticeable in the decrease in the number of recurring drainage nuisances and the reclamation of much valuable ground in the business portion of the city. Much credit is due to the City Health Inspector, Mr. A. J. Lewis (now retired), for the good results achieved.

Owing to the recurring drainage nuisance at the Church of England Hostel at Charleville, a visit was paid and a report and recommendations furnished, These, if carried out, will permanently eliminate the nuisance.

The Ipswich Workshops' water supply was investigated and samples taken for examination.

A recurring drainage nuisance was investigated at Southport and satisfactory arrangements were made for its abatement

Maryborough and Monto were visited in respect of the drainage schemes for those towns, and reports made.

Biggenden was visited owing to a complaint regarding the disposal of butter factory wastes. The matter was amicably adjusted.

Beach Sanitation.

Prior to the Christmas holidays all seaside resorts from the South Coast as far north as Tewantin were inspected in respect of beach sanitation. Where necessary the Local Authorities were notified to effect repairs or construct conveniences for the public. This applied to the camping areas also.

The National Association's grounds were kept under close supervision during the Show week and as a result practically no complaints were received.

Hotel Sanitation.

The creation of the Commission for the Liquor Acts has materially increased the work in this branch, but it must eventually lead to better results as all plans for new buildings, alterations, or additions are submitted to this Department before the work is commenced and, as a result, all necessary sanitary provision can be included before the work is started.

During inspection this year many improvements have been asked for, including, where the nature of the soil and the area are suitable, those much-needed utilities—septic tanks and the attendant W.C.'s.

Hotels inspected	316
Objections raised	258

The objections lodged included general repairs, painting, drainage, septic tanks, water closets, earth closets, bathrooms, urinals, painting, and furnishing.

By-laws for the following Local Authorities were perused:—Jericho, Kolan, and Kilkivan.

Sanitary contracts for the following local Authorities were perused and where necessary amended:—Nerang, Caboolture, Woodford, and Bribie (all in the Caboolture Shire); Yarraman and Cooyar (in the Rosalie Shire); Chillagoe, Mount Mulligan, Mount Molloy, and Dimbulah (in the Woothakata Shire); Richmond, Beaudesert and Goolman.

The towns and places visited by members of the staff of the Head Office were—Alexandra Headland, Amby, Bald Hills, Beerwah, Biggenden, Bribie, Buck Town, Bundaberg, Burleigh Heads, Caboolture, Caloundra, Charleville, Cherbourg, Chinchilla, Cleveland, Coolangatta, Cooroy, Currumbin, D'Aguilar, Dayboro, Dulacca, Forest Hill, Gatton, Grandchester, Grantham, Gunalda, Gundiah, Gympie, Gympie Terrace, Haighlee, Ipswich, Kilcoy, Laidley, Landsborough, Mackay, Marburg, Maroochydore, Maryborough, Miriam Vale, Mitchell, Monto, Mooloolaba, Mooloolah, Morven, Muckadilla, Mudgeeraba, Mulgowie, Mungallala, Nerang, Noosa Heads, Palm Beach, Petrie, Plainlands, Redcliffe, Rockhampton, Rosewood, Roma, Sandgate, Southport, Strathpine, Taroom, Theebine, Tewantin, Tiaro, Villeneuve, Walloon, Wallumbilla, Wandoon, West Burleigh, and Woodford.

During the year 15 leper patients were met and conveyed to Cleveland, where they were handed into the custody of the Superintendent of the Lazaret at Peel Island.

Water samples were obtained from various Local Authorities, Water Authorities, and Government Departments for both chemical and bacterial examinations, the number taken being 168 samples, of which 86 were for bacterial examination and 82 for chemical analysis.

Plague prevention work is still being carried out. The Local Authorities active in this work are—Brisbane, Ipswich, Gympie, Maryborough. Bundaberg, Mackay, Townsville, and Cairns. Weekly returns are forwarded to the Department. In the various centres the local officers are enforcing the provisions of the Plague Prevention Regulations as regards the rat-proofing of buildings.

The number of rodents caught in the metropolitan area was 48,007.

Toowoomba.

The District Officer in Charge reports as follows:—

Number of inspections	1,073
Number of official calls	129
Total	1,202
Number of nuisances	76
Number of sanitary depots	27
Number of garbage tips	32
Number of towns visited	31
Number of miles travelled—	
By car	275
By train	694

There has been no serious epidemic of infectious disease within the area included in the tours of inspection undertaken from this office.

The Toowoomba City Council appears to be unable to solve the problem of maintaining the sewage purification at a reasonable standard of efficiency. It is understood that the presence of sawdust and septic sewage from the nightsoil pans overtaxes the plant at peak periods, but such a circumstance should not be accepted as an adequate reason to continue the pollution of the creek.

The City of Warwick has decided to investigate the question of a sewerage scheme for the business section of the town. Such action is the outcome of an inspection recently made by an officer of this Department and a subsequent report, which adversely commented on the prevailing practice of discharging the foul effluents from septic tanks into the street water channels.

The areas of the Shire Councils visited in the course of inspections were found to be reasonably maintained in respect to sanitation.

Hotel Sanitation.

Number of hotels inspected	125
Number of objections filed	40
Number of hotels reinspected	30

Licensing districts visited—Toowoomba, Warwick, Dalby, Oakey, Crow's Nest.

Towns visited—Toowoomba, Dalby, Kaimkillenbun, Bell, Tara, Jandowae, Oakey, Cooyar, Wutul, Peranga, Kulpi, Acland, Allora, Clifton, Nobby, Greenmount, East Greenmount, Cambooya, Kingsthorpe, Haden, Goombungee, Gomoran, Meringandan, Range View, Crow's Nest, Pechey, Hampton, and Cabarlah.

Rockhampton.

The Officer in Charge reports the following activities carried out in his district:—

Number of inspections	1,016
Number of official calls	217
Number of nuisances inspected	41
Number of sanitary depôts inspected	24
Number of garbage depôts inspected	19
Number of towns visited	27
Miles travelled—	
By train	2,906
By car	819

The following towns were visited during the year:—Alpha, Anakie, Aramac, Barcaldine, Biloela, Blackall, Capella, Clermont, Emerald, Goovigen, Ilfracombe, Isisford, Jambin, Jericho, Longreach, Mount Morgan, Muttaburra, Rannes, Ruby Vale, Sapphiretown, Springsure, Tambo, Thangool, Wowan, and Yeppoon.

Following on my reference to the proposed sewerage scheme for the City of Rockhampton, it is pleasing to report that the actual construction work was commenced on the 28th May last. At the request of the City Inspector visits were made to various premises that were known to be in a dilapidated condition, and after thorough inspection action was taken by the Local Authority to have them renovated. Street channels continue to receive the attention of the Local Authority, which, with the reforming of many streets, has been the means of further improving the drainage of many parts of the city.

Special attention was given to all matters of general sanitation in each of the above towns visited, and in all cases reports with recommendations were forwarded to headquarters.

The inspectors attached to Local Authorities in their respective districts were found to be carrying out their duties in an efficient manner.

Hotel Sanitation.

Number of hotels inspected	65
Number of objections lodged	51

Hotel inspections were carried out in the licensing districts of Barcaldine, Mount Morgan, Longreach, and Rockhampton. Structural repairs, drainage, and bedrooms were the principal matters against which objections were lodged.

MACKAY.

The officer in charge of this district reports as follows:—

The year has been a very busy one with the advent of such works as the Outer Harbour and the sewering of the city. As regards the latter, approximately 800 premises have now been connected up. All the hotels have complied with notices for approved sanitary arrangements.

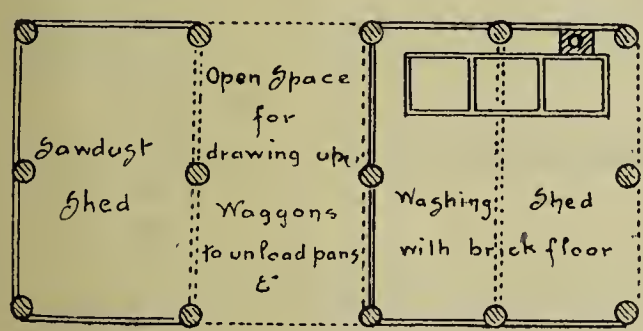
Modern sanitary fittings and improved bathing accommodation have been installed in these hotels. As a result, cleaner and healthier conditions prevail.

Sanitary depôts in both city and shires are in fair order, and premises generally are in a cleanly state.

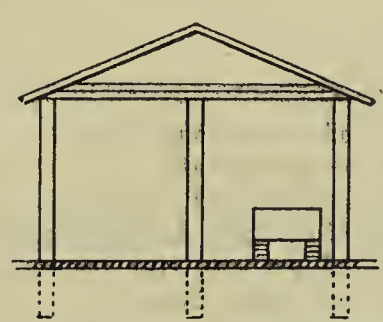
Plague prevention methods are carried out in the city, a permanent ratcatcher being employed whole-time, and very good work is the result.

Number of inspections	925
Number of official calls	71
Number of nuisances inspected	40
Number of sanitary depôts inspected	13
Number of garbage tips inspected	21
Number of towns visited	25

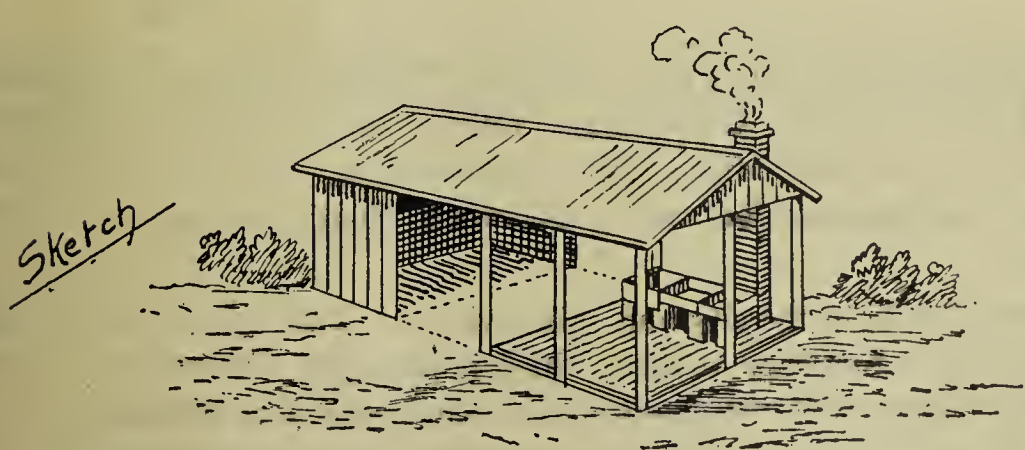
Towns visited—Alligator Creek, Baker's Creek, Calen, Carmila, Eton, Farleigh, Finch Hatton, Grasstin, Hillview, Homebush, Kolijo, Koumala, Kuttabul, Mount Osso, Mount Pelion, Nebo, North Eton, Ockabi, Pindi Pindi, Range, Retreat, Sarina, The Leap, Wudaroo, Yalbaroo.



Plan



Section thro' washing Shed



Sketch Plan of Sanitary Premises.

J.S.

Townsville.

The officer in charge of this district reports as follows:—From the 1st July, 1935, to 14th December, 1935, the officer in charge of this district was engaged full time in carrying out the operations in connection with the Weil's Disease campaign in the Ingham district. He resumed duty on the 16th February, after two months' recreation leave.

During his absence Inspector Wiseman was temporarily transferred to Townsville until 18th December, 1935, when he was relieved by Inspector Kelly for the remainder of the period.

At Ingham a meeting of the Council's Health Committee was attended, when matters pertaining to health works were discussed.

At Bowen the water supply was the subject of an investigation.

Palm Island was visited at the request of the Medical Superintendent and water samples were forwarded for analysis.

Magnetic Island was visited re drainage matters, which are now in a satisfactory condition.

At Townsville the usual routine inspections have been carried out. The city's nightsoil service continues to be maintained in its usual satisfactory manner. A new refuse removal contract was entered into in 1935, which is a great improvement on the previous contract, as it provides for a weekly service and the supply of bins to all premises.

The contract for a comprehensive sewerage scheme has been passed by the Council and is awaiting Government approval. Sections Nos. 1 and 2 should be commenced at an early date.

Great progress has been made in the drainage of the city, some 40 miles of street channelling having been completed within the last two and a-half years. Many nuisances, as well as mosquito breeding grounds, have been removed.

The Police Licensing Inspector was accompanied on his inspections of the hotels in the city. Thirty-two inspections have been made.

Inspections.

General inspections	308
Official calls	75
Nuisances	11
Infectious diseases	5
Sanitary depôts	3
Refuse tips	3
Camps	2

Cairns.

The District Inspector reports the results of his activities thus:—

Number of inspections made	1,741
Number of official calls	29
Number of nuisances attended	3
Number of sanitary depôts inspected	15
Number of garbage tips inspected	6
Number of towns visited	32
Miles travelled—	
By rail	3,488
By car	168

The following towns were visited:—Alma-Den, Atherton, Babinda, Biboohra, Chillagoe, Dimbulah, Einasleigh, El-Arish, Forsayth, Garradunga, Georgetown, Herberton, Innisfail, Kairi, Kulara, Kuranda, Malanda, Mareeba, Millaa Millaa, Mirriwinni, Mossman, Mourilyan, Mount Surprise, Peeramon, Port Douglas, Ravenshoe, Silkwood, South Johnstone, Tarzali, Tolga, Tully, and Yungaburra.

Improvements were noticed both in the city and shires visited. The Cairns City Council is considering the installation of a sewerage scheme, which it is hoped will eventuate. The continued discharge of septic effluents into the street channelling makes it a necessity.

In June the Director-General personally visited Bowen to report on the water supply and the desirability of instituting measures to prevent further pollution.

Hotel Sanitation.

Number of hotels inspected	55
Number of objections lodged	15

The licensing districts visited were:—Cairns, Atherton, Herberton, Innisfail, Mareeba, Douglas, Chillagoe, and Etheridge.

Food and Drugs.

During the fiscal year 1935-36 the work of this division has continued upon the usual lines, and has consisted in the enforcement in the Brisbane metropolitan area and throughout the entire State of the provisions of Part VI. of the Health Acts (Food and Drugs), the Food and Drug Regulations, Milksellers' Regulations, Health (Food Supply) Regulations, Fish Supply Regulations, Poisons Regulations, and Footwear Regulations.

Routine duties were somewhat retarded owing to a portion of the staff being engaged in work connected with an outbreak of Weil's Disease, nevertheless much attention has been given to the public food supply and the control of drugs, poisons, &c.

Inspection of premises, wholesale and retail, and of contained stocks, was conducted, and liquor testing, bread weighing, and milk and food sampling were carried out in town and country areas.

Spirituous Liquors.

The quality of liquors dispensed in hotel bars and clubs was found, with few exceptions, to be good. Warnings were given in a number of instances where spirits were found not to be "true to label." One Brisbane hotelkeeper was convicted of selling adulterated rum.

Samples of all draught and bottled beers on sale in the metropolitan area were obtained during the year for the purpose of analysis. In every case the Government Analyst reported the samples to be free from metals or other adulterants and to conform to the legal standard.

Prosecutions of Licensed Victuallers for Year 1935-36 (Headquarters).

Date.	Place.	Offence.	Fines. £	s.	d.	Costs. £	s.	d.
1935—								
17th September ..	Wyandra ..	Rum, adulterated	1	0	0	1	7	0
24th September ..	Charleville ..	Whisky, adulterated	5	0	0	1	7	0
22nd October ..	Brisbane ..	Rum, adulterated	8	13	0	1	7	0
1936—								
16th January ..	Logan Village ..	Rum, adulterated	5	0	0	0	6	0
16th January ..	Logan Village ..	Gin, falsely described	5	0	0	0	6	0
Totals ..	..	..	24	13	0	4	13	0

Milk Supply.

The administration of the provisions of the Health Acts and Regulations made thereunder, in so far as they relate to the control of the milk supply, has been carried out in a manner similar to the previous year.

As from the 9th May, 1936, the provisions of section 105 of the Health Acts and the Milksellers' Regulations of 1930, requiring the licensing of milksellers, were extended to the areas of the Shires of Beaudesert and Tambourine. The work done during the year is reviewed as follows:—

Bacteriological.—The samples submitted to examination for count totalled 1,088, or an increase of 20 per cent. on last year's figures.

Several prosecutions were instituted where bacterial counts exceeded the number permitted under the Food and Drug Regulations. In some of these cases, on visiting the dairies concerned, the methods of milking and the manner of cleansing cans and utensils very clearly revealed the reasons for the excessive counts. The various points where faults occur at

the dairies have been noted, and a list of "Instructions" designed to rectify these defects have been drawn up. A copy of these is issued to each supplier whose milk is found to contain an excessive number of micro-organisms. The "Instructions" read as follows:—

Instructions for the Improvement of the Bacteriological Standard of the Milk Supply.

(1) Thoroughly cleanse all cans and utensils, including those returned from the depôt, with an adequate supply of *boiling* water, and store them in a dairy room which is effectively protected against flies and dust, until again required for use.

(2) Wash and dry the udder and teats of each cow before milking.

(3) Wash the hands with clean water and dry them, immediately before commencing to milk each cow, and not only after cleaning the udder, the handling of feed, or adjustment of the leg rope.

(4) Draw off the first jet or two of milk from each quarter of the udder and reject same.

(5) Keep the holding can in a sheltered position, and covered with a clean cloth.

(6) Use an effective strainer, with cotton filter wad between the gauze discs.

(7) Immediately aerate and cool the milk by running it over a water cooler.

(8) Keep the cans of milk protected from the direct rays of the sun until placed on the train or truck for despatch.

Chemical.—The total number of samples submitted to chemical analysis was 3,005, an increase of almost 50 per cent. on the previous year's figures. These include samples from Beenleigh, Dayboro, Ipswich, Manly, Wynnum, Sandgate, and Redcliffe. In addition, 70 samples were obtained from Bundaberg, Gympie, Mitchell, Nambour, Pialba, and Roma. With the exception of 16, all of these samples were obtained by the two officers engaged solely on milk control. Details of analyses will be found in the report of the Government Analyst.

Prosecutions.—Eighty-four successful prosecutions were instituted against milk vendors, as against 50 for the previous year, for breaches of Part VI. of the Health Acts and of the Milk Sellers' Regulations and Food and Drug Regulations. Penalties amounted to—Fines £455 3s. and costs £91 9s. 6d., as against fines £160 10s. and costs £50 15s. in the previous year. This very noticeable increase in prosecutions is due partly to the general shortage of milk supplies over a period of several months, the generally unsatisfactory condition of the industry as a whole, and partly to the increased activities of the inspectors, who have, of necessity, worked long hours in order to maintain the milk supply in a condition of reasonable safety.

Pasteurised Milk.—Samples of pasteurised milk obtained from the different companies and various vendors were found, with one exception, to conform to the bacteriological standard. In this instance samples of the same batch of milk submitted by the company to its own analyst gave similar results. An immediate investigation revealed that a heat-resisting organism had got into the plant. The whole of the plant was forthwith subjected to rigorous treatment, and no further trouble was experienced.

Milk from a Certified Dairy, &c.—All of the samples of milk obtained from the supplies of the "certified" dairy conformed to standard. No other dairy has yet aspired to this class, but a few producer-vendors now have herds certified free from T.B. and contagious abortion.

Premises.—Numerous inspections of wholesale depôts and retail vendors' premises have been made, and legal proceedings instituted against several vendors for having used premises other than those specified in their licenses. This refers to vendors who kept their cans on their residential premises, where no suitable provisions were made for cleansing and storage purposes. There are no doubt many vendors using unsuitable premises, but the available staff and travelling facilities are insufficient to permit the efficient control of this branch of the work.

Remarks on Prosecutions.—There were thirty prosecutions for the sale of milk adulterated with water, twenty of which were in connection with the milk supply of the metropolis and its environs. The other ten were in connection with the milk supplies of Gympie, Maryborough, Mitchell, Nambour, and Roma.

The range of added water was from 3·6 per cent. to 44 per cent.

Ten persons were prosecuted for having sold milk which contained excessive numbers of micro-organisms. The counts ranged from 3,120,000 to 11,024,000 micro-organisms per cubic centimetre. The remaining forty prosecutions were for breaches of the Health Acts, and Regulations made thereunder, in regard to bottling of milk for sale under improper conditions, premises, vehicles, utensils, and selling milk without having first obtained the necessary license.

PROSECUTIONS FOR ADULTERATED MILK (ADDED WATER) FOR YEAR 1935-36 (HEADQUARTERS).

Date.	Place.	Added Water.	Fines.	Costs.
		Per cent.	£ s. d.	£ s. d.
1935—				
30th July	Gympie	10·0	10 0 0	1 7 0
30th July	Gympie	8·2	8 4 0	1 7 0
30th July	Gympie	10·0	10 0 0	1 7 0
31st July	Brisbane	28·2	20 0 0	1 7 0
31st July	Brisbane	7·2	7 10 0	1 7 0
6th August	Brisbane	6·7	6 0 0	4 4 0
15th August	Brisbane	10·0	10 0 0	1 7 0
15th August	Brisbane	4·5	4 0 0	1 7 0
23rd August	Brisbane	10·0	10 0 0	1 1 0
26th August	Maryborough	3·6	3 12 0	3 9 0
26th August	Brisbane	10·0	10 0 0	1 7 0
26th August	Maryborough	20·9	20 0 0	1 7 0
26th August	Maryborough	10·9	10 10 0	1 7 0
26th August	Maryborough	8·5	8 10 0	1 7 0
4th September	Roma	19·0	19 0 0	1 7 0
5th September	Mitchell	6·0	6 0 0	1 7 0
15th October	Brisbane	24·5	20 0 0	1 7 0
15th October	Brisbane	10·0	10 0 0	1 7 0
17th October	Sandgate	9·0	9 0 0	1 5 6
17th October	Brisbane	12·7	12 0 0	1 7 0
12th December	Brisbane	24·0	20 0 0	1 7 0
1936—				
9th January	Brisbane	16·4	16 0 0	1 7 0
9th January	Brisbane	15·4	15 0 0	1 7 0
4th February	Brisbane	10·9	10 0 0	1 7 0
30th March	Brisbane	23·6	20 0 0	1 7 0
11th May	Brisbane	10·0	10 0 0	1 7 0
15th May	Brisbane	44·0	20 0 0	1 7 0
18th May	Brisbane	18·2	18 0 0	1 7 0
18th May	Brisbane	9·0	9 0 0	1 7 0
4th June	Nambour	33·6	20 0 0	3 9 0
Totals			£372 6 0	£47 3 6

In addition, one Brisbane dairyman was convicted and fined £1 3s. and £1 7s. costs for having sold milk 30·3 per cent. deficient in milk fat.

PROSECUTIONS FOR ADULTERATED MILK (EXCESS BACTERIA) IN METROPOLIS FOR YEAR 1935-36.

Date.	Micro-organisms per Cubic Centimetre.	Fines.	Costs.
		£ s. d.	£ s. d.
1935—			
23rd July	4,992,000	0 12 0	2 8 0
23rd July	5,832,000	0 12 0	2 8 0
23rd July	5,824,000	0 12 0	2 8 0
23rd July	6,480,000	0 12 0	2 8 0
1936—			
4th February	11,024,000	1 2 0	2 8 0
19th May	4,576,000	1 0 0	2 8 0
19th May	3,180,000	1 0 0	2 8 0
19th May	3,600,000	1 0 0	2 8 0
19th May	3,120,000	1 0 0	2 8 0
19th May	7,200,000	1 0 0	2 8 0
Totals		£8 10 0	£24 0 0

MISCELLANEOUS PROSECUTIONS AGAINST MILK-SELLERS BY HEADQUARTERS STAFF FOR YEAR 1935-36.

Date.	Place.	Nature of Offence.	Fines.			Costs.		
			£	s.	d.	£	s.	d.
1935—								
23rd July	Brisbane	Use of improper vehicle	1	0	0	0	6	0
25th July	Brisbane	Improper bottling of milk	1	0	0	0	6	0
25th July	Brisbane	Sale of milk without license	1	0	0	0	6	0
25th July	Brisbane	Use of unregistered premises	1	4	0	0	6	0
26th July	Brisbane	Use of improper vehicle	1	0	0	0	6	0
26th July	Brisbane	Water carried on milk vehicle	2	0	0	0	6	0
29th July	Brisbane	Use of unregistered premises	2	0	0	0	6	0
29th July	Brisbane	Use of unregistered premises	1	10	0	0	6	0
31st July	Brisbane	Water carried on milk vehicle	2	4	0	0	6	0
1st August	Brisbane	Name not on vehicle	0	10	0	0	16	6
2nd August	Redbank	Milk-vessels without lids	1	0	0	0	6	0
2nd August	Ipswich	Milk-vessels without lids	2	0	0	0	6	0
15th August	Brisbane	Use of unregistered premises	1	0	0	0	6	0
23rd August	Brisbane	Sale of milk without license	1	0	0	0	6	0
29th August	Brisbane	Use of unregistered premises	1	0	0	0	6	0
19th December	Brisbane	Milk-vessels without lids	3	0	0	0	6	0
1936—								
9th January	Brisbane	Use of improper vehicle	1	14	0	0	6	0
9th January	Brisbane	Milk-vessels without lids	0	14	0	0	6	0
16th January	Brisbane	Use of improper vehicle	1	10	0	0	6	0
16th January	Brisbane	Milk-vessels without lids	1	0	0	0	6	0
4th February	Brisbane	Milk-vessels without lids	1	14	0	0	6	0
27th February	Brisbane	Use of rusty milk-cans	1	4	0	0	6	0
28th February	Ipswich	Use of rusty milk-cans	0	10	0	0	6	0
12th March	Brisbane	Use of dirty vehicle	2	0	0	0	6	0
12th March	Brisbane	Use of dirty vehicle	2	0	0	0	6	0
12th March	Brisbane	Name not on vehicle	0	10	0	0	6	0
7th May	Redcliffe	Milk-can stopped with soap	0	10	0	0	6	0
9th May	Brisbane	Use of unregistered premises	3	0	0	0	6	0
11th May	Brisbane	Water carried on milk vehicle	3	0	0	0	6	0
11th May	Brisbane	Milk-vessels without lids	3	0	0	0	6	0
12th May	Brisbane	Use of unregistered premises	5	0	0	0	6	0
12th May	Brisbane	Use of unregistered premises	3	0	0	0	6	0
14th May	Brisbane	Milk-vessels without lids	1	0	0	0	6	0
14th May	Brisbane	Milk-vessels without lids	1	0	0	0	6	0
18th May	Brisbane	Milk-vessels without lids	2	0	0	0	6	0
20th May	Lindum	Use of improper vehicle	1	0	0	2	8	0
22nd May	Bundamba	Sale of milk without license	1	0	0	0	6	0
22nd May	Bundamba	Milk-vessels without lids	1	0	0	0	6	0
22nd May	Bundamba	Use of dirty vehicle	1	0	0	0	6	0
25th May	Brisbane	Use of dirty vehicle	2	0	0	0	6	0
25th May	Brisbane	Improper bottling of milk	0	10	0	0	6	0
2nd June	Brisbane	Use of dirty vehicle	1	0	0	2	8	0
4th June	Nambour	Milk-can stopped with soap	3	0	0	1	7	0
4th June	Nambour	Use of dirty vehicle	4	0	0	1	7	0
8th June	Brisbane	Improper bottling of milk	2	0	0	0	6	0
Totals			£73	4	0	£20	6	6

BREAD.

The weight of bread was given considerable attention, resulting in a number of bakers appearing in the Summons Court charged with having in their possession light-weight loaves. The prompt issue of loaves from the bakehouse to supply the public demand for hot bread renders it difficult to check their weight before delivery to the customer. This difficulty was overcome to some extent by visits to shops in order to ascertain the position with respect to such freshly baked bread, and in consequence of this action a number of shopkeepers were proceeded against. Three bakers were prosecuted for having failed to protect bread in course of delivery from contamination.

SHORT-WEIGHT BREAD PROSECUTIONS FOR YEAR 1935-36 (HEADQUARTERS).

Date.	Place.	Deficiency.	Fines.			Costs.		
			£	s.	d.	£	s.	d.
1935—								
19th November	Bundaberg	94½ ounces	2	7	6	0	6	0
19th November	Bundaberg	52½ ounces	2	12	6	0	9	0
1936—								
21st February	Rathdowney	101 ounces	2	0	0	0	6	0
27th February	Burleigh	27¼ ounces	5	0	0	0	6	0
23rd March	Brisbane	43½ ounces	1	14	0	0	6	0
23rd March	Brisbane	27 ounces	2	0	0	2	2	0
23rd March	Brisbane	31½ ounces	1	14	0	0	6	0
23rd March	Brisbane	25½ ounces	1	14	0	0	6	0
18th March	Manly	59½ ounces	5	0	0	0	6	0
Totals		462¼ ounces	24	2	0	4	13	0

Fruit.

Fruit heavily contaminated with lead and arsenic at one time was exceedingly common, owing to big consignments arriving by steamer and train from Southern States. A careful examination of this fruit occupied some officers of this Department to the detriment of other essential services. Representations were made in particular to the Victorian Government, and a considerable amount of correspondence ensued. In that State careful inspections of fruit intended for export overseas were made, but the inspectors of the Department appeared to be at a disadvantage with regard to inspections of fruit intended for internal delivery and for interstate trade. Apples and pears, particularly from the Harcourt district, appeared to be those most markedly contaminated, samples containing arsenic (As_2O_3) at the rate of one-sixteenth of a grain per lb.

After Departmental conferences, it was mutually agreed that it was not possible by any ordinary method, such as brushing, wiping, or washing, to render these fruits safe for human consumption, and that except with special appliances and under official control, it was not possible properly to apply the hydrochloric acid solution method experimentally carried out by certain authorities in England and America.

Certain consignments were returned to the senders because the sale of such fruits is prohibited by the provisions of the Health Acts in Queensland, but in later consignments sale was permitted after the fruit had been thoroughly washed under the supervision of officers of this Department. This action was satisfactory whilst the quantities affected were small, but owing to the large quantities later arriving, it was impossible to supervise the work of cleansing with the existing staff. Fruit usually arrives on Mondays and Thursdays by boat, and by train at any time, and instances have occurred where five boats have been simultaneously discharging fruit at wharves as far apart as the Stanley Wharf, South Brisbane, and the Mercantile Wharf, Bulimba.

During the year 3,932 cases of apples and pears required to be cleansed before permission for sale was accorded.

As any condemnation of the fruit here or its return to Victoria necessarily resulted in a loss to the grower that was regretted, their co-operation was sought through official channels, and it is gratifying to record that on 3rd June last, a communication was forwarded by the Premier of Victoria, stating that following an investigation as to the possibility of drafting legislation which would give the Department of Agriculture power to prevent the export to Queensland of Victorian fruit contaminated with lead arsenate, the Victorian Government had decided to introduce an amendment to the Fruit and Vegetables Act to provide that no fruit may be exported from Victoria to any other State in the Commonwealth unless it is free from any substance or material declared by the Governor in Council to be deleterious. This co-operative measure is heartily appreciated, and with the passage of the amending Act, it is expected that it will be possible to control the position much more satisfactorily.

Fish Supply.

Supervision of Brisbane's fish supply at the Markets and the sale of fish by retail shops and hawkers was maintained by the two inspectors stationed at the fish markets. Some 30 tons 7 cwt. 17 lb. of different species of fish were condemned by these officers, and its destruction witnessed, on the score of being unfit for human consumption. In addition, 1,065 crabs and 13½ bags of oysters were condemned for the same reason.

Preservatives in Meat.

It was found that some butchers continue to use a preservative substance in fresh meat in contravention of the provisions of the Food and Drug Regulations, 1928. The danger of this practice will be appreciated when it is remembered that stale meat so treated becomes bright red in colour with every evidence of freshness. Two Brisbane butchers were fined for the use of sulphur dioxide in mincemeat.

Prosecutions for Adulterated Minced Meat for year 1935–36. (Headquarters).

Date.	Place.	Quantity of Preservatives (Sulphur Dioxide).	Fines.	Costs.
1936—			£ s. d.	£ s. d.
18th March ..	Brisbane	2·8 grains per lb.	3 0 0	0 6 0
18th March ..	Brisbane	5·6 grains per lb.	3 0 0	0 6 0
Totals ..	..	..	6 0 0	0 12 0

Beer.

During the year samples of all draught and bottled beers and stout on sale in the metropolitan area were obtained for the purpose of analysis. In every case the Government Analyst reported these samples to be free from metals or other adulterants, and to conform to the legal standard.

Lead in Toys.

Manufacturers continue to place on the market toys composed wholly or in part of lead, or coloured with lead paints, in contravention of the Health Acts. The activities of the Department's officers resulted in owners destroying some 6,125 toys which offended in this respect.

Unsound Food.

During the period under review the officers of the headquarters' staff certified to the destruction of over 37 tons of foodstuffs as unfit for human consumption, details of which are as follows:—

Name of Food.	Tons	cwt.	qrs.	lbs.
Bicarbonate of Soda	6	15	2	18
Cheese	0	0	0	10
Chutney	0	0	0	2
Custard Powder	0	0	0	4
Essences (Culinary)	0	0	3	20
Fish (Canned)	0	5	1	7
Fruit (Fresh)	6	12	3	13
Fruit (Preserved)	9	6	3	11
Meat	0	0	0	10
Olives	0	0	0	1
Olive Oil	0	0	0	4
Pickles	0	0	1	11
Soup Powders	0	0	0	12
Vegetables	14	14	0	6
Vinegar	0	0	0	2
Walnuts	0	0	2	4
Total	37	16	3	25

In addition, 1,064 rabbits, 31 bags of coconuts, 277 bottles of patent medicines, 50 packets of cigarettes, and 4 packages of tobacco were similarly dealt with.

Tobacco.

Supervision over tobacco leaf offered for sale in the State was maintained, and 741 samples secured in the metropolis were submitted to the Government Analyst. Of these, six lots were found to be contaminated with excessive quantities of arsenate of lead, and the leaf concerned was not permitted to be sold for the manufacture of tobacco.

From results obtained from such examinations, it is apparent that the majority of tobacco-growers are now using arsenical insecticides with more caution, and it was ascertained that far less arsenate of lead was purchased by them during the last cropping season.

Poisons.

Control of poisons and dangerous drugs was continued, and consisted of the inspection of premises of wholesalers, chemists, and licensed dealers, and of stocks found therein, and the checking of books and records required to be kept by such persons. A chemist was successfully prosecuted for the offence of selling a restricted drug other than upon the written prescription of a medical man.

Poisons Prosecutions for year 1935–36 (Headquarters).

Date.	Place.	Nature of Offence.	Fines.	Costs.
			£ s. d.	£ s. d.
1935— 27th August	Brisbane	Cyanide baits laid in public place	1 0 0	0 6 0
1936— 8th June	Brisbane	Sale of restricted drug without medical prescription	5 0 0	0 6 0
Totals			£6 0 0	£0 12 0

Crayons, Etc.

In view of danger to which children are exposed in the use of crayons, pastels, and coloured chalks containing lead or arsenic, action was taken during the period under review to require all such poisonous articles to be labelled "Poison." The Department's action in this respect has had the effect of encouraging manufacturers to replace these lines with non-poisonous articles suitable for use by children.

Falsely Described Quilt.

The Health Acts provide that any quilt described or designated by any particular name denoting that it contains a certain substance shall be packed entirely with such substance. For a breach of this provision legal proceedings were launched against a draper for having sold a quilt described as "wool filled," whereas in fact the material contained in the article consisted of 56·4 per cent. wool and 43·6 per cent cotton. Upon it being shown that the seller had no reason to believe that the quilt was of quality other than as described, and agreeing not so to offend again and to pay any costs incurred, proceedings were withdrawn.

Sampling.

During the year a total of 6,568 samples of foods, drugs, and poisons were obtained by our officers, and submitted to the Government Chemical Laboratory for examination. These samples include:—Baking soda, beer, beverages and cordials, bread, coloured chalks, condiments, crayons, cream, disinfectants, drugs and medicines, essences, fish (canned), fish (fresh), fruit, jelly crystals, margarine, meat, milk, paint, pastels, pathological specimens, soaps, stout, spirituous liquors, tobacco leaf, toilet preparations, toys, vegetables, wine.

Bacteriological Sampling.

A total of 1,189 specimens, including the following articles, was collected and submitted by headquarters inspectors to the Director of the Laboratory of Microbiology for examination, viz.:—Bread, bottles, disinfectants, goat's milk, ice cream, milk, oysters, pickled pork, salmon, water.

Visits to Country Centres.

Apart from inspectorial work carried out in the metropolis, visits by the Headquarters Staff were made to the following outside centres:—Adavale, Amby, Augathella, Bargara, Beaudesert, Beenleigh, Bethania, Biggenden, Bilinga, Boonah, Burleigh, Bundaberg, Canungra, Childers, Chinchilla, Cordalba, Cunnamulla, D'Aguilar, Dallarnil, Dulacca, Dugandan, Eidsvold, Eulo, Gayndah, Gympie, Harrisville, Jimboomba, Kalbar, Kerry, Kilcoy, Lamington. Loganlea, Logan Village, Main Beach, Miami, Miles, Mitchell, Monto, Morven, Mundubbera, Mungallala, Nambour, Nielson Park, Palm Beach, Peak Crossing, Pleystowe, Quilpie, Radford, Rathdowney, Roadvale, Roma, Southport, Surfers' Paradise, Tambourine, Taroom, Teviotville, Thargomindah, Toompine, Tugun, Twenty-seven Mile, Veresdale, Villeneuve, Wallambilla, Wandoan, Warrilview, Waterford, Woodford, Woodhill, Wyandra, Yandaran, Yeulba.

Miscellaneous Prosecutions of Food Vendors for year 1935–36 (Headquarters).

Date.	Place.	Nature of Offence.	Fine.	Costs.
			£ s. d.	£ s. d.
1935—				
12th May	Fortitude Valley	Name not displayed on vehicle	2 0 0	0 6 0
19th September ..	Quilpie	Food exposed to contamination	2 0 0	0 6 0
24th October ..	Ashgrove	Name not displayed on vehicle	3 0 0	0 6 0
14th November ..	Fortitude Valley	Food exposed to contamination	1 10 0	0 10 0
18th November ..	Fortitude Valley	Food exposed to contamination	4 0 0	0 6 0
18th November ..	Fortitude Valley	Name not displayed on vehicle	2 0 0	0 6 0
1936—				
9th January ..	Greenslopes ..	Use of rusty ice-cream container	1 14 0	0 6 0
26th February ..	Milton	Name not displayed on vehicle	0 10 0	0 6 0
26th February ..	Red Hill	Name not displayed on vehicle	0 10 0	0 6 0
4th April	Fortitude Valley	Name not displayed on vehicle	1 0 0	0 6 0
11th May	Fairfield	Food exposed to contamination	3 0 0	0 6 0
26th May	Fairfield	Food exposed to contamination	0 14 0	0 6 0
Totals ..	..	..	£21 18 0	£3 16 0

Cairns.

The Officer in Charge of the Cairns sub-office reports that, apart from his activities in that city, visits of inspection were made to the following country centres:—Alma-den, Atherton, Babinda, Biboohra, Chillagoe, Dimbulah, Einasleigh, El-Arish, Forsayth, Garradunga, Georgetown, Herberton, Innisfail, Kairi, Kulara, Kuranda, Malanda, Mareeba, Millaa Millaa, Mirriwinni, Mossman, Mourilyan, Mount Surprise, Peeramon, Port Douglas, Ravenshoe, Silkwood, South Johnstone, Tarzali, Tolga, Tully, Yungaburra.

The officer's duties at Mareeba and Dimbulah included the sampling of tobacco leaf offered for sale in those centres. Of some 500 samples of leaf submitted to analysis, all were found either to be clean or to contain a small proportion only of arsenate of lead.

Forty-nine samples of milk were obtained and forwarded to the analyst, and as a result four vendors were proceeded against at Innisfail and Cairns for having sold milk adulterated with added water. Fines totalling £85 and £12 4s. costs were secured.

Supervision over the sale of fruit and vegetables was maintained during the year, and it was found necessary to secure the treatment of 117 cases of apples, which fruit was heavily contaminated with poisonous spray residue.

Seven crates of celery imported from another State were condemned and destroyed owing to contamination of the vegetable with copper salts.

General inspection of foods in this area included the testing of spirits and the weighing of bread. The officer reports that in no case was a licensee found to be selling adulterated spirits. Prosecution of a baker in a country centre for having in his possession light-weight bread is pending.

During the year under review a total of 1 ton 8 cwt. 0 qr. 11 lb. of unsound food was destroyed at the instigation of the Department's officer.

As a result of inspections of chemists' shops and premises of licensed dealers in poisons, it was ascertained that the provisions of "The Poisons Regulations of 1924" were in the main being complied with.

Townsville.

During the period under review the officer attached to the sub-office at Townsville was engaged in a campaign against Weil's disease, which necessitated his absence from that centre for many months, during which time the office was in charge of an inspector transferred from headquarters.

Thirty-six samples of milk were submitted to the Government Analyst, and two of these were found to be adulterated with added water. As a result of the adulterated samples two milk sellers appeared in the Townsville Summons Court, and were each convicted; fines imposed totalled £25 and £2 14s. costs.

A consignment of pears from a Southern State was found to be heavily contaminated with a poisonous spray residue (lead and arsenic), and the local agent was required to clean the fruit before offering it for sale.

Our officer certified to the destruction of 2 cwt. 1 qr. 4 lb. of foodstuffs as unfit for consumption, in addition to which twenty-one bags of cauliflowers, twenty-one bags of swede turnips, and five bags of pumpkins were destroyed for a similar reason.

A baker at Charters Towers was proceeded against for having in his possession light-weight bread. The Police Magistrate hearing the case imposed a penalty of £1 19s. and 6s. costs.

Mackay.

The officer in charge of the Department's sub-office in Mackay reports that the year has been a busy one.

Seventy samples of milk secured in the city area were submitted to an analyst. Of these fifty-seven conformed to the legal standard, whilst thirteen failed either by reason of added water or a deficiency in milk fat.

A milk seller was convicted and fined £6 and £4 10s. costs for having sold milk adulterated with 6·3 per cent. added water.

Inspection of food stores and factories, bread weighing, and testing of spirituous liquors was carried out both within the city and outside areas. Some 10 tons of foodstuffs were certified to by our officer as unfit for human consumption, and subsequently destroyed by the owners thereof.

Visits were made to the following country centres:—Finch Hatton, Alligator Creek, Sarina, Nebo, Retreat, Range, Eton, North Eton, Homebush, Baker's Creek, Grasstree, Koumala, Orkabi, Carmila, Hillend, Farleigh, Wudaroo, The Leap, Kattabul, Mount Ossa, Mount Pelion, Calen, Pindi Pindi, Yallaroo, Kolijo.

Rockhampton.

The inspector stationed at Rockhampton reports a busy period in the supervision of the manufacture and handling of all classes of foodstuffs, both in the city itself and the majority of country towns in the Central District.

The sale of milk received attention, and seventy samples were secured from retail distributors and milk-bars. The analyst reported six of these to be deficient in milk-fat, whilst two samples were adulterated with added water. Legal proceedings in respect to the latter are at present pending.

Liquors dispensed at hotel bars have been tested from time to time, and found to conform to standard. In one instance, however, it was necessary to prosecute the husband of the licensee for obstructing the officer in his duties under the Health Acts, when the court imposed a penalty of £1 and 6s. costs.

The weight of bread has received attention, and bakeries inspected in all towns visited. A baker was proceeded against for having sold light-weight bread, and a conviction secured, the fine inflicted being £2 4s. and 6s. costs.

Inspection of foods generally resulted in our officer certifying to the destruction of 3 qr. 10 lb. of fish, 1 qr. 8 lb. of canned prunes, and 18 lb. of canned cod fish as being unfit for human consumption. In addition, some 89 tons of foodstuffs damaged by fire and water were rejected.

Visits of inspection were made to the following outside centres:—Alpha, Anakie, Aramac, Barcaldine, Biloela, Blackall, Capella, Clermont, Emerald, Goovigen, Ilfracombe, Isisford, Jambin, Jericho, Longreach, Mount Morgan, Muttaburra, Rannes, Rubyvale, Sapphiretown, Springsure, Tambo, Thangool, Wowan, Yeppoon.

Toowoomba.

For the first two months of the fiscal year the Department's Toowoomba officer was stationed at headquarters in a relieving capacity, but during the remainder of the period considerable work in his area has been accomplished. Outside centres visited included:—Acland, Allora, Balgowan, Bell, Cabarlah, Cambooya, Clifton, Cooyar, Crow's Nest, Dalby, East Greenmount, Gomoran, Goombungee, Greenmount, Haden, Hampton, Highfields, Jandowae, Kaimkillenbun, Kingsthorpe, Kulpi, Meringandan, Nobby, Oakey, Pechey, Peranga, Rangeview, Tara, Warwick, Wutul.

The milk supply of Toowoomba was given continued supervision, involving the collection of 129 samples for submission to the Government Analyst, and it is gratifying to record that in no instance was a sample adulterated with added water. Whilst 114 of the samples conformed to standard, the remaining fifteen were returned by the Analyst as deficient in fat content. The usual procedure of calling upon the suppliers of the defaulting samples to take the necessary action to provide against a recurrence of such offence appeared to bring about the desired improvement.

Spirituous liquors tested were found in most cases to comply with legal standards. In a few instances the refilling of proprietary bottles with draught spirits was detected, and steps taken to correct such practice.

A total weight of 1 ton 7 cwt. 1 qr. 25 lb. of unsound foods were destroyed under our officer's supervision. In addition, 100 cases of apples received from a Southern State were found to be contaminated with a poisonous spray, and the apples in question were first required to be effectively treated to remove any potential danger to the health of the customer before being allowed to go on the market for sale.

For having sold mincemeat adulterated with added preservative eight Toowoomba butchers were proceeded against in the Summons Court. The presiding magistrate imposed a fine of £1 in each case, and granted costs totalling £12 16s. 6d., making a total for fines and costs of £20 16s. 6d.

Legislation, &c.

"The Sanitary Conveniences and Nightsoil Disposal Regulations, 1931," expired and were re-gazetted for a further period of five years, *Government Gazette,* 6th February, 1936.

"The Thursday Island Diphtheria Regulations, 1931," expired and were re-gazetted for a further period of three years, *Government Gazette,* 25th May, 1936.

"The Rat Prevention and Distruction Regulations (Ingham area)" were re-gazetted for a period of one year, *Government Gazette,* 5th December, 1935.

"The Rat Prevention and Destrueton Regulations Amendment Regulations of 1936" (an amendment of "The Rat Prevention and Destruction Regulations (Ingham area) of 1935") were gazetted on 24th June, 1936, to be in force until 31st December, 1936.

Alterations in Staff.

Dr. J. Coffey, Deputy Director General of Health and Medical Services, was appointed Official Visitor to the Hospital for the Insane, Toowoomba, on the 6th February, 1936.

Dr. J. Grahame Drew, State Health Officer, was seconded to the Department of the Protector of Aboriginals, and appointed Acting Medical Officer and Acting Superintendent, Aboriginal Settlement, Palm Island, on the 12th March, 1936, for the purpose of general reorganisation at that institution.

Dr. E. H. Derrick's appointment as Director, Laboratory section, Department of Public Health, was confirmed as from the 1st June, 1935.

Mr. H. W. Petherick, Chief Food Inspector, resigned as from 31st December, 1935.

Mr. J. G. Wiseman, Health Inspector, retired as from the 31st December, 1935.

Messrs. A. W. Lowe and C. J. Murray, Assistants to Inspector, were appointed Acting Health Inspectors from 13th February, 1936, to 30th June, 1936.

The appointments of Messrs. H. W. Hodgson, G. R. Roberts, and J. B. Williamson as Inspectors in connection with the campaign for the control of rats, mice, and bandicoots in the locality within which Weil's Disease has been declared an infectious disease were terminated, after the conclusion of the cane-cutting season.

Administration.

It is pleasing to report that Queensland has maintained its high standard of health, as evidenced by the tabulated statistics appearing under the various headings in this report.

The aim of a Health Department is to prevent or at least to be on guard against disease, and when, unfortunately, disease does occur, it devolves upon the Department to take the most effectual measures for correction of the situation.

Local authorities have co-operated in this respect, and thus infectious diseases, which might have become wider spread, have been stamped out at their inception by the timely measures adopted. Local authorities have also received advice willingly in many instances upon sanitary problems, and much good has been achieved by personal approach to Councils in these matters.

I desire to thank Dr. Coffey, Dr. Derrick, Dr. Hayes, and all other officers of this Department, and of various other Departments, for the valuable assistance rendered during the year. In particular, the progress of the public health has been forwarded by the co-operation of the Crown Law Department, the Government Analyst and his staff, while the assistance of members of the Police Department has been indispensable and efficient to a high degree.

R. W. CILENTO,
Director General of Health and Medical Services.

Appendix A.

HOOKWORM CAMPAIGN.

DEPARTMENT OF PUBLIC HEALTH.

ANNUAL REPORT, 1936.

General.

The staff working under Field Hookworm control at the beginning of July, 1935, comprised a microscopist and one residential nurse at Cairns, two residential nurses at Innisfail, one residential nurse at Tully, and one residential nurse at Ingham. Mr. Real was the only sanitary inspector attached to the campaign and was responsible for the sanitation in the Cairns and Mossman areas.

During April, 1936, two new nurses—K. Bowder and E. Brennan—arrived in Cairns from Brisbane for hookworm instruction. After being in Cairns for two months, Nurse Bowder was transferred to Tully to replace Nurse Webb, who was transferred to Ingham. Nurse Waterhouse at Ingham was then transferred to Gympie to take up duties in general school work only. Nurse Brennan was also transferred to Innisfail to take over from Nurse Underwood, who was transferred to Rockhampton.

The previous year two nurses were stationed at Innisfail, and during April of this year it was decided to transfer Nurse Vincent to Atherton to carry out a hookworm school survey of the Tablelands.

On the 30th June, 1936, Inspector Real finished his services with the Hookworm Campaign, this now leaves the campaign without a sanitary inspector.

The present disposition of officers is as follows:—Cairns: S. Thompson, Microscopist, and Nurse M. Thomsen; Innisfail: Nurse E. Dale Brennan; Tully: Nurse K. Bowder; Ingham: Nurse A. S. Webb; Atherton: Nurse C. A. Vincent.

At the beginning of February, 1936, a hookworm school survey was commenced in the Cairns, Innisfail, Tully, and Ingham areas as previously done in 1934.

Although this survey is not yet completed, the positive hookworm school figures in the attached table show that there is a big drop in the infestation rate compared with the previous survey.

Owing to the high infestation rate of the school children in the Mossman area during the last school survey, it was decided to carry out a house to house intensive survey, which was commenced during March by Inspector Real.

This area was divided into six sub-areas, namely, Mossman town, Port Douglas town, Mowbray, Cassowary, Saltwater and Daintree. The first three sub-areas were completed by the end of June, and the remaining sub-areas will be commenced when another inspector is available.

During the last six months field work in all areas has been carried out under difficulties owing to the continuous wet weather. During this period school survey work and intensive survey was carried out in all the towns of each area so that each officer would be fully occupied.

The continuous wet weather has also prevented the microscopist from carrying out mass-treatment work amongst the aboriginals.

Most of the follow-up work and delivery of treatments for school children has been carried out through the schools by the nurses.

It will be noticed in the attached table that 773 positive hookworm cases were found, and of these 411 were cured, which shows that the machinery of the Hookworm Campaign has never stopped. Of course, in numerous cases several doses of medicine had to be given to the hosts who were harbouring the Ancylostoma type of hookworm before affecting a cure.

During November, 1935, the Microscopist and Nurse Thomsen visited Yarrabah Mission and mass-treated 359 aboriginals for hookworm disease; the drugs being used were oil of chenopodium and carbon terachloride.

Mass treatment work was also carried out by the Microscopist and Nurse Thomsen at the homes of white and coloured children during the first half-year. This is the best method of treating hookworm disease for obtaining better results of cures.

The work carried out by the nurses in each centre during the last twelve months in eradicating hookworm disease has been satisfactory.

Attached hereto please find tables giving figures of each area with headings to indicate the nature of the work done.

Returns of sanitation and other works carried out by Inspector Real in the Cairns and Mossman areas are attached.

S. THOMPSON, Microscopist in Charge.

The Deputy Director-General of Health,
Brisbane.

Hookworm Campaign.

Endemic Area under Residential Control.

Table to Accompany Annual Report, 1936.

Name.	Census.	Specimens.					Treatments.				
		Received.	Exam'd.	Re-exam'd.	Positive. H. W.	Positive. Others.	Notices.	Delivered	Posted.	E. C'ts.	Cured.
Cairns Area—											
Schools	1,047	1,180	1,020	160	120	67	55	89	41	120	93
Innisfail Area—											
Schools	2,078	19,29	1,898	31	52	137	89	31	3	52	25
Tully Area— ..											
Schools	910	942	865	77	69	53	32	63	17	69	40
Ingham Area—											
Schools	941	939	936	3	30	62	7	17	..	30	2
Atherton Area—											
Schools	585	485	481	4	7	10	9	5	..	7	3
School Total ..	5,561	5,475	5,200	275	278	329	192	205	61	278	163
Intensive Survey—											
Mossman Town Sub-area	881	867	867	..	50	17	17	48	..	50	..
Port Douglas Sub-area	153	150	150	..	5	4	4	5	..	5	..
Mowbray Sub-area	174	168	168	..	1	1	..	1	..	1	..
Cassowary Sub-area	68	63	63	..	2	5	..	..	..	2	..
Intensive Survey Total	1,276	1,248	1,248	..	58	27	21	54	..	58	..
Other Hosts in—											
Cairns Area ..	..	115	..	115	58	4	2	23	22	58	57
Mossman Area ..	..	33	..	33	11	..	..	11	..	11	22
Innisfail Area ..	..	103	..	103	46	1	1	53	1	46	57
Tully Area	..	24	..	24	3	..	..	..	..	3	21
Ingham Area ..	..	53	..	53	20	..	..	12	..	20	33
Other Hosts Total	..	328	..	328	138	5	3	99	23	138	190
Miscellaneous—											
Cairns Area ..	567	583	497	86	118	18	13	71	26	118	42
Mossman Area ..	2	2	2	..	..	..	..	..	..	..	..
Innisfail Area ..	376	376	376	..	23	36	37	7	..	23	..
Tully Area	304	234	211	23	39	17	17	41	10	39	1
Ingham Area ..	290	309	297	12	38	8	2	34	..	38	11
Atherton Area ..	3	3	3	..	..	..	..	..	..	..	..
Miscellaneous Total	1,542	1,507	1,386	121	218	79	69	153	36	218	54
Aborigines—											
Cairns Area ..	33	34	26	8	25	1	..	123	..	25	1
Mossman Area ..	1	1	1	..	1	..	..	1	..	1	..
Innisfail Area ..	11	18	11	7	5	..	..	5	..	5	3
Atherton Area ..	3	3	3	..	2	..	..	1	..	2	..
Yarrabah Mission ..	383	383	383	..	48	235	..	..	..	28	..
Aborigines Total ..	431	439	424	15	81	236	..	130	..	61	4
All Areas—											
Cairns Area ..	2,030	2,295	1,926	369	369	325	70	306	89	349	193
Mossman Area ..	1,279	1,284	1,251	33	70	27	21	66	..	70	22
Innisfail Area ..	2,465	2,426	2,285	141	126	174	127	96	4	126	85
Tully Area	1,214	1,200	1,076	124	111	70	49	104	27	111	62
Ingham Area ..	1,231	1,301	1,233	68	88	70	9	63	..	88	46
Atherton Area ..	591	491	487	4	9	10	9	6	..	9	3
Grant Total ..	8,810	8,997	8,258	739	773	676	285	641	120	753	411

Hookworm Cultures.

Areas.	Ancylostoma.	Necator.	Mixed.
Cairns Area	52	8	6
Mossman Area	14	48	4
Totals	66	56	10

SCHOOL GOING CHILDREN.

Re-examinations after being Cured Six Months.

Name of Areas.	Received.	Re-examined.	Re-infected, H.W.	Others.	Still Cured.
Cairns Area	66	66	13	1	53
Innisfail Area	61	61	5	1	56
Tully Area	51	51	9	1	42
Ingham Area	49	49	13	..	36
Totals	227	227	40	3	187

ADDENDUM TO HOOKWORM REPORT.

Sanitation.

West Cairns (Cairns City).

Number of places visited	37
Number of sanitary conveniences inspected	37
No action required	2
Number of defective cabinets	35
Re-inspections	35*
Action taken	12
Action partially taken	1
No action taken	22

Cairns Shire.

Number of places visited	487
Number of sanitary conveniences inspected	529
(This number includes 390 cabinets inspected prior to 1st July, 1935. All re-inspections, however, were made this year.)	
No action required	52
Number of defective cabinets	477
Re-inspections	477*
Action taken	124
Action partially taken	53
No action taken	300

Douglas Shire.

Number of places visited	309
Number of sanitary conveniences inspected	386
No action required	59
Number of defective cabinets	327
Re-inspections	86*
Action taken	52
Action partially taken	22
No action taken	253†

* These figures refer to the number of cabinets re-inspected, not the number of reinspections made.

† Re-inspections have not yet been made in the Port Douglas, Mowbray, or Cassowary sub-areas.

Classification of Cabinets.

D Class	Regulation cabinet
G Class	Below standard, but not premitting soil pollution
E Class	Allowing soil pollution
F Class	No sanitary convenience

West Cairns (Cairns City).

After first inspection—

D. Class.	G. Class.	E. Class.	F. Class.
..	6	29	2

After re-inspections—

D. Class.	G. Class.	E. Class.	F. Class.
10	5	20	2

Cairns Shire.

After first inspection—

D. Class.	G. Class.	E. Class.	F. Class.
47	91	361	30

After re-inspections—

D. Class.	G. Class.	E. Class.	F. Class.
132	123	251	23

Douglas Shire.

After first inspection—

D Class.	G. Class.	E. Class.	F Class
70	93	216	7

After re-inspections in Mossman only—

D Class	G Class.	E. Class.	F. Class.
92	111	176	7

HOOKWORM WORK.

Cairns Area.

Containers delivered	59
Specimens collected	68
Treatments delivered	8

Ingham Area.

Containers delivered	140
Specimens collected	131
Treatments delivered	38

Mossman Area.

Containers delivered	1,252
Specimens collected	1,250*
Treatments delivered	56
Notices delivered	15

* In addition to these specimens, twenty-four re-examination specimens were collected.

Appendix B.

GOVERNMENT CHEMICAL LABORATORY.

The Director-General of Health,
Department of Health, Brisbane.

SIR,—I have the honour, in accordance with section 31 of "*The Health Acts,* 1900 *to* 1934," to submit the following report of work done in the Government Chemical Laboratory for the Department of Health during the year ending 30th June, 1936.

The number of samples examined during this period was 6,568. This total exceeds by 254 the previous record number examined for your department in 1933-1934.

TABLE I.—SUMMARY OF SAMPLES.

Nature of Sample.	Number of Samples.	Passed.	Failed.
Baking powder	11	11	..
Beer	9	9	..
Beverages and cordials	71	42	29
Bread	16	10	6
Colouring	8	1	7
Condiment	11	11	..
Crayon	324	212	112
Cream	13	13	..
Disinfectant	6	6	..
Drugs and medicines	71	32	39
Essence	37	21	16
Fish (tinned)	40	30	10
Fish (not tinned)	16	1	15
Fruit	470	22	448
Jelly crystals	8	..	8
Margarine	20	18	2
Meat	33	17	16
Milk (fresh)	3,496	2,989	507
Paint	67	22	45
Pathological specimen	256	212	44
Soap	25	14	11
Spirituous liquor	55	47	8
Tobacco leaf	1,241	1,232	9
Toilet preparation	16	10	6
Toy	38	3	35
Vegetable	15	9	6
Water	82	64	18
Wine	25	25	..
Miscellaneous	88	68	20
	6,568	5,151	1,417

TABLE II.—PARTICULARS OF LEGAL SAMPLES OF MILK.

Place.	Number of Samples.	Passed the Standard.	Deficient in Fat.	Deficient in T.S. and/or S.N.F.	Adulterated with Water.	Average Percentage of Added Water.
Greater Brisbane Area	2,656	2,296	251	49	60	11
Barcaldine	5	5	..	..	..	..
Bundaberg	14	13	1	..	..	..
Cairns	39	31	2	3	3	21
Dalby	9	6	3	..	..	..
Gympie	20	20	..	..	..	..
Innisfail	10	5	..	..	5	12
Ipswich	102	94	6	..	2	7
Longreach	6	3	1	..	2	14
Mackay	70	58	5	1	6	3
Maryborough	10	8	2	..	..	..
Mitchell	3	3	..	..	..	..
Nambour	10	4	..	..	6	12
Redcliffe	45	41	4	..	..	..
Rockhampton	59	53	6	..	..	..
Roma	13	13	..	..	..	..
Rosewood	12	10	..	2	..	..
South Coast	100	89	4	2	5	16
Toowoomba	108	100	8	..	..	..
Townsville	36	28	3	2	3	10
	3,327	2,880	296	59	92	11

TABLE III.—SUMMARY OF TABLE II.

	Number of Samples.	Percentage of Sample.
Adulterated with water	92	2·8
Free from added water but deficient in fat	296	8·8
Above 3·3 per cent fat but below the standard in total solids and/or solids not fat	59	1·8
Passed the standard	2,880	86·6
	3,327	100·0

TABLE IV.—MILK POSITION COMPARED WITH THE FIVE PREVIOUS YEARS.

Year.	Number of Legal Samples.	Deficient in Fat Per Cent.	Watered Samples. Per Cent.	Average Percentage of Added Water.
1930–31	1,638	8·7	2·5	8
1931–32	1,865	7·8	4·1	10
1932–33	2,146	5·0	4·9	7
1933–34	2,250	5·4	3·1	8
1934–35	2,506	7·8	3·4	8
1935–36	3,327	8·8	2·7	11

The proportion of milks adulterated with water was 2·3 per cent. in the Greater Brisbane area, and 4·8 per cent. outside this area.

Warnings, and nominal penalties, have failed to reduce the high proportion of milks deficient in fat.

The proportion of samples falling below the minimum fat standard of 3·3 per cent. should not exceed 3 per cent., whereas last year it was 8·8 per cent.

The position in regard to visible dirt is fairly satisfactory. Very rarely does the weight of dirt in a sample exceed 1 grain to the gallon, but in sound dairy practice there should not be more than one-third of a grain in this volume of milk. Under the pressure of modern dairy hygiene the old tolerance of 1·5 grains of visible dirt to the gallon must be buried with an unclean past.

Beer.—Some bottled beer still contained traces of a sulphite preservative, but the pernicious salicylic acid is apparently not used by brewers to-day. The samples were also free of arsenic and lead. A trace of copper still persists in quantities ranging from $\frac{1}{20}$th to $\frac{1}{30}$th of one part per million, but copper in traces is recorded as being beneficial to the human organism.

The proof spirit in the popular malt and sugar beers ranged from 8·8 to 9·2 per cent., while the full malt beer contained 11 per cent.

Beverages (Non-alcoholic).—Most of the beverages were condemned because of false labelling. In a country like Queensland, with its almost unlimited supply of fresh fruit, there is no excuse for placing on the market a water solution of sugar, fruit acid, artificial colour, preservative, and chemical essence, and labelling it so as to represent fruit juice as being present.

Fish (Tinned).—There appears at long intervals a new shipment of tinned sild that is alkaline in reaction, and markedly corrosive to the tin. With time the alkalinity increases and the corrosion also becomes worse. This kind of sild pack may be regarded from the start as being in doubtful condition. It is obviously difficult for the inspector to keep such fish under obervation after it has been distributed. Of the ten samples of this quality of fish submitted nine contained tin at the rate of from 3 to 6 grains per pound.

Formaldehyde in Cured Fish.—The results of an investigation to determine whether the usual tests for detecting the presence of formaldehyde in foodstuffs could be used to ascertain whether formaldehyde had been added to dry salt ling were published recently by the Torry Research Station, Department of Scientific and Industrial Research, Aberdeen. (*Vide* Analyst, vol. 61, 1936.)

Part of the conclusion to this investigation reads, "It has been shown that ling (fresh or salted), to which no formaldehyde has been added as preservative, may give a positive reaction in Schryver's test applied directly to the flesh, and positive reactions with all the formaldehyde tests as customarily applied to distillates of the flesh. There is no evidence to show that formaldehyde is a normal constituent of fresh or salt cured ling."

The Torry Station recorded some high formaldehyde results by Schryver's direct method on dry salt ling to which it is said no formaldehyde had been added. Our experiments on tailer and mullet fish did not afford any evidence by this method of the presence of formaldehyde either in the fresh or salt cured fish.

By the distillation method, as practised in this laboratory, the Torry Station recorded about ten parts per million of formaldehyde in salt ling that was said to be free from added formaldehyde. This figure is much lower than the tolerance accepted by you for formaldehyde in smoke-cured fish. Our reports on formaldehyde in fish have been in no way rendered invalid through the investigation at the Torry Station. Of fifteen samples of cured fish examined during the year fourteen contained formaldehyde ranging from 24 to 510 parts per million. In some instances the odour of formaldehyde was pronounced. From imported moist lightly salted filleted haddock only 4 parts per million was recorded.

Fresh Fruit.—Of the 470 samples taken of fruit imported from a Southern State, 448 were condemned because of the presence of more than $\frac{1}{100}$th grain of arsenic to the pound.

While the tolerance permitted for arsenic on fruit is $\frac{1}{100}$th grain to the pound in England, Australia, and America, the fact should not be overlooked that the arsenic is present in the form of lead arsenate, and that the proportion of lead present is invariably almost twice that of the arsenic.

Minced Meat.—Because minced meat is much used by invalids the presence of preservative in it is not permitted, but some butchers persist in its use. Nine samples received from a country inspector contained from 0·5 to 13·6 grains of sulphur dioxide to the pound.

Wine.—Only one of 25 samples of low-priced wines examined was found to be unsound. The remaining 24 samples were sound potable wines free from metallic contamination, preservative, artificial colour, and other forms of adulteration.

The proof spirit content varied from 28·8 per cent. to 35·9 per cent., 16 samples containing over 31 per cent.

Tobacco Leaf.—The position in regard to tobacco leaf submitted to auction is satisfactory, only 9 samples of 1,241 received exceeding the tolerance for poisonous insecticide.

Paint.—Of 67 samples of paint examined 45 contained more than 5 per cent. of soluble lead. Under the Queensland Health Acts it is enacted that no paint containing more than 5 per cent. of soluble lead, calculated as monoxide, shall be used on any veranda railing, gate, or fence.

For the determination of soluble lead half a gramme of the paint pigment is continuously shaken for an hour at a temperature between 70 deg. F. and 75 deg. F. with 500 grammes of an aqueous solution of hydrochloric acid containing 0·25 per cent. of hydrogen chloride. The solution is thereafter allowed to stand for one hour and then filtered. The soluble lead is determined in the filtrate.

The hydrochloric acid content of the solvent used in this method is based on that of gastric juice.

The adoption of 98 deg. F.—that is, body temperature—for the extraction would mean in many instances a higher proportion of lead dissolved.

TABLE V.—SOLUBLE LEAD IN SOME LEAD COMPOUNDS AS DETERMINED BY THE ABOVE METHOD

Compound.	Lead calc. as monoxide. per cent.	Soluble Lead (calc. as monoxide) per cent.	Soluble Lead percentage of Total Lead.
	%	%	
White Lead	86·0	86·0	100.0
Red Lead (Commercial)	96·9	94·8	97·8
Lead Sulphate (Chemically Pure)	73·4	20·0	27·2
Middle Chrome (Commercial)	73·0	21·5	29·5
Lead Chrome (Commercial)	75·0	20·7	27·6
Yellow Chrome (Commercial)	72·0	10·3	14·3
Middle Chrome (Commercial)	68·4	1·1	1·6
Lead Chromate (Chemically Pure)	68·9	1·1	1·6

Crayons.—Of 324 samples of crayons submitted 112 contained lead compounds, and 6 of these also contained arsenic. The lead ranged from 0·7 per cent. to 31 per cent., and the arsenic from 0·2 per cent. to 1·7 per cent. The sample containing the highest proportion of arsenic was coloured with London Purple, a by-product in the manufacture of dyes. London Purple contains a high proportion of arsenite of lime, and is used as an insecticide.

Thirty per cent. of the lead contained in some of the "chalk" crayons was soluble in the solvent prescribed for the determination of soluble lead in paint.

Toys.—Only 3 of 38 samples of toys examined were free from lead. Four toy motor cars and one bugle were made of an alloy containing 86 per cent. of lead and 14 per cent. of antimony.

The mouthpieces of 11 whistles were also made of the same alloy.

Bottle Caps.—The lead foil type of bottle cap appeared on a large number of bottles of cordials submitted. The caps contained about 97 per cent. of lead. In the presence of air and moisture portion of the lead is converted into carbonate, which is soluble in the acid cordial. It may be seen as a white deposit about the caps of bottles which have been in stock for some time.

Menace of Lead.—It is stated by authorities on lead poisoning that the daily intake of 1 to 2 milligrams ($\frac{1}{65}$th to $\frac{1}{32}$nd part of a grain) of lead produces a lead intoxication after some months. Children are said to be twice as susceptible to lead poisoning as adults, and girls more susceptible than boys.

In connection with the "drink more milk" campaign it is interesting to read the following advice given in a standard work on lead poisoning: "No work in a lead factory should be commenced in the morning without partaking of food, because if food be present the opportunities for absorption of lead are greatly diminished, and of all foods the one to be recommended as the most efficient is milk, or cocoa made with milk."

Pathological Specimens—

Nature of Specimen.	Number of Specimens.
Blood	2
Fæces	66
Hair	19
Liver and kidney (sheep)	13
Nails	2
Rib bones	2
Urine	151

Black Liver in Sheep.—Sheep livers and kidneys were examined for the purpose of determining the cause of black liver in sheep. The black livers were uniformly black, and unsaleable as human food. They represent only a very small proportion of the total livers. The health of sheep does not appear to be affected in any way through black liver.

TABLE VI.—SOME OF THE RESULTS FROM SHEEP LIVERS.

Colour of Liver.	Parts per Million (on wet substance.)			
	Copper.	Iron.	Calcium.	Sulphur.
Black	152	117	162	3,000
Black	263	77	117	2,900
Black	154	90	57	2,884
Black	152	121	75	..
Black (Mottled)	125	156	920	..
Normal	24	46	81	2,500
Normal	10	76	93	2,800
Normal	4	176	156	..
Normal	42	150	106	..

Although the black livers contained more copper than normal livers, it has not been demonstrated that the blackening is due to the higher copper content.

Drugs and Medicines.—Seventy-one samples of drugs and medicines were submitted, many of them involving long and tedious analyses. The composition of proprietary medicines must be carefully determined before an opinion that will survive a legal battle could be formed on the therapeutic claims made for them. The victim of the bite of a venomous snake who used on the wound only "A sure cure for snakebite," which proved to be an aqueous solution of sodium nitrate, would probably be sadly disappointed with the result.

Any approved preparation purporting to be a cure for snakebite should have the active constituent, or constituents, declared on the label, and directions also for the general treatment of the case.

A mixture of red lead and plaster of Paris that was being vended as "complexion powder" might be useful in a paint for concrete, but it could not be regarded as a non-injurious cosmetic.

Aspirin.—Most of the brands of aspirin on the local market were submitted and all of them conformed to the British Pharmacopœia standard for this drug.

One or two brands were consistently below the declared weight to the extent of from 2 to 4 per cent.

Aspirin is usually put up in 5-grain tablets and the weight is generally declared.

As some headache powders weigh as much as 12 grains per powder, enforcement of declaration of weight seems advisable.

Miscellaneous Samples.—These covered a wide range of materials, including car polish, chlorize, gelatine, honey, bottle caps, icing sugar, insecticides, formalin, dental compound, hydrometers, meat pies, beef bouillon, shoes, soup, tallow, and quilts.

GENERAL.

I acknowledge the great assistance given in the preparation of the above report by Mr. L. A. Meston, the senior of the two State Analysts in the Foods and Drugs Section of the Laboratory during the period covered by the report.

On 30th June, 1936, Mr. J. Brownlie Henderson, O.B.E., F.I.C., having reached the official age limit, was retired from the Public Service. He was Government Analyst in Queensland for forty-three years and also Chief Inspector of Explosives for thirty years.

Always an advocate of one chemical laboratory for the Government service instead of departmental laboratories, Mr. Henderson has guided the growth of the Government Chemical Laboratory so that it covers a wide range of work for the various Departments. He has been a representative of the Queensland Government at several conferences of the Commonwealth and States of Australia, held with a view to obtaining uniform standards for foods and drugs.

His early professional training was obtained at Anderson's College, Glasgow, under the guidance of Professor Dittmar. He has always been actively interested in the advancement of scientific work in Australia.

My own appointment as Acting Government Analyst and Acting Chief Inspector of Explosives dated from 1st July, 1936.

Yours faithfully,

FRANK E. CONNAH, Acting Government Analyst.

Appendix "C."

THE CONTROL OF WEIL'S DISEASE IN THE CANEGROWING AREAS.

By R. W. Cilento, Kt., M.D., Director-General of Health and Medical Services.

Following a more than usually severe outbreak of Weil's disease in 1934, an anti-rat campaign was instituted and continued for two years. The rat population had increased to a very great extent, following two seasons very favourable for rainfall and consequential food supplies. At the outset an extensive survey of all the sugar-cane areas affected was made officially, with a view to outlining a definite plan which might be conducted under the control of the Government but with the assistance of the Shire Councils and the Pest Boards established in the sugar-cane areas affected. Under the Director-General, the activities in the field were carried out by Mr. W. McNeil, Health Inspector.

A general survey revealed very marked evidences of intensive rat infestation. The canefields, the roads and tramways through the fields or adjacent to them, the river banks and the railway route all provided ideal shelter owing to the very heavy growth of lantana, guava, blady grass, and other kinds of weeds and tussocks. Dried and decayed vegetation of these types, mixed with old cane trash, had been piled up even beyond the fence levels on the boundaries of many farms. The low-lying nature of the land involved swampy patches, casual drains, creek beds, and pools being scattered everywhere throughout the cultivated area, and the uncultivated spots acted as breeding and harbourage grounds. That the situation was recognised by the farmers and the mills is indicated by a letter sent out by the Chairman of the Macknade Pests Board on the 1st November, 1934, in which it was stated that "The situation this year was very largely caused by the existence of so much natural harbourage for rats for a number of years, due to several factors, neglect being by no means the least of them." The circular added, "Any scheme for rat control is bound to fail unless drastic steps are taken to destroy this harbourage effectively."

This opinion was definitely in line with that accepted technically elsewhere, but the cleaning up of the roads and other areas provoked considerable opposition at the outset on the ground that it was beyond the capacity of any campaign. Fortunately, by the use of flame-throwers, the situation did not provide the difficulties anticipated. With very few exceptions all roads in the district run alongside canefields. The roads are wide—in some cases 3, 4, and 5 chains in width, with only a central trafficable track cleared. In many instances the vegetation on the roads was higher and denser than that upon the headlands between cane crops in neighbouring fields. A surprising difference was observed, however, wherever portions of the road had been taken in by permission for grazing purposes. These were sometimes so well cleared as to be almost devoid of harbourage.

The sanitary conditions on many farms were found to be well below standard. The barracks for housing the canecutters did not, as a general rule, comply with the necessities for decent living standards. The majority were built on the ground surface, and provided with concrete floors, though in several instances these were broken and out of repair, and rats lived and bred beneath them in security.

The sanitary conveniences which were formerly brought up to date as a result of the Hookworm Campaign were found in many cases to have fallen out of repair and to be by no means fly-proof. Many pans and kerosene tins remained unemptied, and the disposal of fæces left much to be desired. Fouling of the ground during work was common—a habit encouraged by the cover afforded by the high and dense vegetation. The percentage of hookworm among these workers is very high indeed, reaching an occasional figure of 19–25 per cent.

Rat damaged cane and field.

Harbourage between road and creek.

A very dirty road, cane fields each side, badly infested with rats, wallabies, snakes, &c.

Rubbish and refuse disposal is not very satisfactory, materials often being dumped into the overgrown vegetation on the roads, headlands, creeks, or depressions, providing excellent cover and food for rats. Liquid and semi-liquid wastes are merely thrown out of the kitchen door or window.

The stables on almost every farm provide excellent harbourage, apart from the available supplies of unprotected horsefeed.

Outbuildings, in which are stored farm machinery, fertiliser, and odd lumber, are similarly infested. Water supplies are derived from wells and rain water tanks. The strainers on many tanks were found to contain rat excreta, probably washed down from the roof gutters, but no leptospiræ were isolated from specimens submitted to neighbouring laboratories.

The wells range from 20 to 50 feet in depth, and are rarely protected from surface pollution.

On a minority of farms, first-class conditions obtained, and many farmers have, for years, put forth every effort to reduce rat infestation. The partial nature of this endeavour, however, was disheartening to those engaged in it. The damage done by rats was very extensive. In 1933, 9,000 tons of rat-damaged cane were noted at Victoria Mill, and 11,000 tons at the Macknade Mill. In 1934, rat-damaged cane was again very high, being estimated for the two mills at 16,000 tons, while losses not delivered to the mills were estimated at 5,500 additional tons. At an average of 32s. per ton, the actual loss in money is obviously heavy.

The first essential in the campaign was obviously to destroy as much as possible the rat harbourage existing, opening up the hiding places and driving the rats into the open, where they would have to contend, under disadvantageous circumstances, with their natural enemies. The second essential was to reduce the available supply of natural food as much as possible, and in this connection it was noted that rats relied to a large extent on some of the seedy grasses, bushes, &c., for the supply of certain vitamin essentials not so readily obtained elsewhere. It will be recalled that both the vitality and the fertility of the rat are affected by these causes, so that the destruction of these rat foods not only clears harbourage and starves the rats, but reduces the litter of those that survive.

The third essential was a direct attack upon the rat itself by means of poison. All these measures were necessarily bound up in the constant essential of independent and continued supervision. It was found that, without supervision, even the best intentioned of farmers failed to carry out written or verbal instructions.

The initial work involved—

1. Inspection at regular intervals of all roads;
2. Continued information as to the conditions of all road services;
3. Preparation of working maps of the district;
4. Selection of suitable starting points for gangs and some estimation of the probable effect of daily tasks;
5. The selection of suitably situated barracks or camping places;
6. The purchase of all necessary tools, &c., and their deposit at suitable spots.
7. The provision of progressive report forms for gangers and overseers.

An officer was seconded from the Main Roads Commission as overseer of the gangs on road-clearing work, and his experience was most valuable in arranging these details, and also throughout the campaign.

Two complete clearances were effected throughout the course of the work. Eleven gangs, each of five men, working from November, 1934, to the end of January, 1935, completely cleared 72 miles of main roads as well as a number of reserves and school grounds and both banks of Palm Creek. Through the courtesy of the Department of Transport the railway reserves were burnt throughout the whole area and for several miles outside.

During the second clearing, forty-four men, increasing to seventy, were employed over a period of ten weeks from September, 1935, to the end of November, 1935, and succeeded in clearing 110 miles of main and side roads. Much assistance was also given to farmers in the destruction of harbourage on headlands alongside their crops or alongside the roads. Accumulations collected over many years were destroyed in this way, and although a very rapid growth of grass in these tropical districts creates cover in a very short space of time, the dense network of vines, creepers, grasses, and general undergrowth would take a number of undisturbed seasons to replace.

A very marked diminution of rat infestation followed the first campaign, while the second campaign was so effective that the reduction in the number of rats was a matter for general comment.

In the first clearance the rat infestation was found to be heavy. In all areas many parts of the roads were found riddled with rat burrows, and tracks and pads were easily discerned throughout the vegetation, especially along the fence lines. In places where the lantana and vines grew thickly through and over the trees, rat nests were found in the midst of the thick cover high up in the branches. In one instance eight young were taken from a nest, and from another twelve were removed. Burrows were often found on level ground, principally around the roots of trees. Round the roots of the pandanus was a favourite place. Burrows were always found under thick cover, and never in the open. Lantana afforded the best protection.

The general procedure followed for clearing was as follows:—

From the starting point a determined length of road was set on fire with the flame-thrower in a systematic way. When all burnable vegetation was consumed, brushing operations from the starting point were commenced, and everything which constituted rat cover was cut down and left to dry.

During the brushing work two men were detailed to continue burning ahead of the brushers so as to maintain the cutting at a regular pace. Burning was not allowed to be carried on too far ahead of the main gang, so that all the men would be under the eye of the ganger, and all would be handy in case any fire threatened to get out of hand. The brushed vegetation was allowed to dry for two to four days. This was controlled by the state of the vegetation and the weather. When the firing squad had worked sufficiently far ahead, they would return and fire the brushed material.

As a rule these three operations completed the job, but on roads where trees were growing, branches and trunks of fallen or brushed trees were not disposed of in the previous burnings. Two or three men would be detailed to build up stacks of this timber, which was left for a time until thoroughly dry, when the stacks were set on fire with the flame-thrower, and kept alight until all was consumed.

The above system of working had, of course, to be varied to meet different circumstances, such as—

1. In timber country where the shade afforded by the trees protected the undergrowth, and kept it green despite the dry weather conditions;
2. On roads where the lantana was very dense and heavy;
3. In dry watercourses, swampy lands, and large depressions which held moisture for a long time and kept the vegetation in a green condition.

In circumstances such as the above it was found by experience that burning was not advisable in the first instance, and that the better plan was to brush first and burn afterwards. In this way the destruction of green vegetation was accomplished much quicker, and a cleaner and more satisfactory result was obtained.

Under the conditions enumerated above, the firing of green vegetation without first brushing and drying was only a waste of time and labour.

A jungle cleared. Note—Arrows pointing to rat nests in trees. Before clearing trees were grown over with vines.

A cleared headland between cane fields.

Ploughed Headland—Dense Harbourage on River Bank.

The burning of harbourages was carried out by means of the "Major" flame-thrower. A definite system was adopted so that the work would not be executed in a haphazard manner. Complete "through" burns were never obtained when firing in a casual manner was done.

The wind is a determining factor when setting fire to high dense herbage situated alongside canefields. The strength and direction of the wind must always be taken into account. Strong winds necessitated small, easily controlled fires. Winds blowing along the length of the road meant burning across the width. Winds blowing across the road meant firing along the length.

When firing across the width the fire was started at the edge of the traffic-way and a continuous line of fire set right across to the boundary fence. The flame from the flame-thrower was then shut down, and walking along the fence for about 40 yards the operator would set another line of fire from the fence to the traffic-way, and so on alternately from road to fence and from fence to road.

These lines of fire very soon burned into each other, and by the time the operator had reached his finishing point the whole area had almost burned itself out. In long stretches of road where only high, dense grass had to be contended with very quick, clean, and complete burns were accomplished with one burn.

When firing along the length of road the wind had to be carefully watched, and firing could only be done on that side of the road on which the wind drove the fire away from the cane. The general rule was to fire the vegetation along the fence line, which made it easier to watch and control the fire and protect the cane.

Burning against the wind did not always give a complete "through" burn. It often happened that the fire would creep through patches of drier vegetation and enter the headlands of the cane paddocks unobserved.

Burning with the wind blew the fire towards the road, which acted as a firebreak.

The utmost vigilance had to be exercised during all the burning operations because of the very dry, hot weather which was experienced.

Everything, including the cane, was as dry as tinder at certain periods, and it was quite a simple matter for a spark to set fire to a field of cane and cause considerable damage. It was often noticed that the intense heat of the blazing vegetation would cause unexpected air currents, and a "blow back" would sometimes occur.

Trees were often a source of danger, as the fire would very quickly run up the light, loose, dry bark and set the whole tree ablaze. On many occasions the light burning bark was caught by the wind and caused very anxious moments. Sometimes the fire would speed ahead along a narrow track of dry grass and appear at some unexpected spot at some distance from the main blaze.

On most of the roads the grasses and other vegetation were 6 to 7 feet high, with an equally dense growth on the headland in the canefield alongside. Under such conditions the danger of starting an uncontrollable cane fire was very acute. Caution indicated that under such conditions the burning was best left until after the cane had been cut, and prevented expensive compensation claims. In most instances it was decided to wait and make a clean sweep of the road and headland without danger.

It was found that the cutting of a firebreak between the road and the cane did not work out well in practice. It gave a false sense of security, as a carpet of dry grass was always left through which fire would creep unobserved while the men were on guard at the danger spots. The clearing of breaks was also a waste of time, and slowed up the work considerably, as a tremendous amount of herbage was cut down that could have been destroyed by the easier and more effective method of burning.

A second firing without brushing causes a loss of time also, as the vegetation is considerably thinned out by the first burn, and as a consequence the operator has to fire in patches, which proceeding proved very unsatisfactory and slow.

The brush-hook was the principal tool used for cutting down the herbage. Both long and short handles were used. The short handle was useful when working in timber country where space was limited. The long handle was employed in open country, and for the high vegetation. Axes were useful in dealing with the heavier material, such as low timber, lopping low branches of trees, lantana, &c. Chipping hoes were of little use except for clearing fire-breaks round telegraph poles and fence posts. Scythes were found very useful in grass country where there were few trees or stumps. Rakes were very seldom used. Cane knives were found to be a very handy tool for trimming off low scrub or trees, and also for the lighter timber and lantana. Mattocks were of no practical value and were seldom used.

The "Major" flame-thrower was the chief weapon employed in the destruction of all the various kinds of rat cover and harbourage. The description and particulars of the apparatus have been published, and are now so well known that they need not be repeated here. In pioneering the use of this machine the campaign demonstrated an up-to-date, simple, and effective method of destroying the overgrowth of vegetation in a quick and economic manner. Although simple in action, and effective in operation, the continued success of the machine depends on the care and common sense of the operator. It must be noted that although the apparatus can throw a long—up to 15 feet—very intense flame, it cannot be expected to do impossible things. The vegetation must be reasonably dry, and in a condition for burning. The flame will not ignite green vegetation straightaway.

Green vegetation may be dealt with by first playing the flame until the material is sufficiently dry, but this uses up oil and time, hence the economic value is lost.

Eleven flame-throwers—one per gang—were employed throughout the campaign, and were the means whereby so much ground was so completely cleared in such a short time. Shell fuel oil was used. Other oils were experimented with, and all gave satisfactory results, but that used could not be faulted, and, being cheaper than the others, was the better proposition from a financial point of view. In the first clearance an average of 3 gallons per hour was used. In the second clearance an average of 2·3 gallons per hour was used. The explanation of the difference between the two averages is that in the first clearance greener vegetation had to be coped with, and rain fell at intervals during the work. The second clearance was carried out during a very dry spell.

The amount of oil used depended on several factors:—

(1) The amount of care exercised by the operator.
(2) The cleanliness of the fittings.
(3) The maintenance of a uniform pressure.
(4) The presence or absence of the small "whirler" in the jet. When present the oil is forced out in a spray over the ignited pad and no waste occurs. When absent it is forced out in a stream and all the oil is not ignited, and therefore is wasted.
(5) The nature and condition of the vegetation.

It was found advisable to strain the oil twice while filling the cylinder. A second strainer, with a very fine gauze, was therefore made to fit into the aperture of the cylinder and supplied to all machines. The oil was first strained through the larger strainer provided with the thrower, and then through the finer one. Very little choking of the jet was experienced after this improvement.

Minor improvements are required, such as a rearrangement of the fittings on top, so as to avoid skinning the knuckles when pumping, and designed so that it could be carried knapsack fashion, and thus made much easier to operate by one man.

In addition to clearing away rat harbourage, these operations provided greater visibility for the road traffic, and this point was kept in view throughout, and at many corners and turning points special clearances were made to increase the visibility. The clearing of the

Burned off brushed lantana, &c.

Burning off.

Showing flame approximately 14 feet with a fair cross wind blowing flame towards vegetation. Rear man is Inspector McNeill, who controlled the campaign in the field.

roads also opened up the country, and instead of driving along lanes with high dense vegetation on both sides, the beauty of the countryside could be viewed with pleasure as one travelled through the district.

The plan laid down for these clearances worked well and smoothly right through the course of the work, and there is no hesitation in saying that the job was a thorough and complete one.

The labour was selected through the Labour Bureau by roll call in the usual way.

It is a pleasure to record that the men worked very hard, loyally, and uncomplainingly through trying and adverse conditions. To carry on and clear the jungle-like state of the roads under the heat of a tropical sun, with the added heat of flame-throwers and burning vegetation, was not an easy or pleasant task. It is due to the labour of these men, picked up as unknown quantities at the Labour Office, that the work was so well done and finished right on scheduled time.

The great width of many of the roads, the greater portion of which is unused, and at present useless, could be very cheaply kept clean by giving permission to farmers to fence off sufficient areas to be used as grazing paddocks only. Such has been done by a few farmers, and their stock keep the fenced-off portion perfectly clean. No clearing by the gangs was necessary within these fenced-off areas.

Excellent work was done on farms by farmers under the supervision and control of the campaign officers. Five hundred and fourteen farmers harvested 21,270 acres of cane land in this area, and had not, perhaps, realised what excellent harbourage and food provision existed in their uncleared headlands. In organising this section of the work, they readily recognised that the destruction of all harbourage and food supply was necessary if a poison campaign was to follow effectively. They also realised the desirability of saving cane destruction—a very serious source of loss—by attacking the rats throughout the whole season. The district was divided into four areas, and an overseer was appointed for each. They were instructed collectively and individually in their duties and were given practical experience in the field before being permitted to act independently. Daily and weekly reports of a detailed nature were required and were cross-checked. A weekly conference permitted constant co-operation and co-ordination of activity, and also added to the effectiveness of the work as experience indicated from time to time. Road-clearing, farm-clearing, and rat-poisoning were as much as possible correlated so as to produce the maximal combined effect. In all 6,086 inspections were carried out, representing on the average twelve inspections per farm; 396 farms were declared completely cleared, and 108 fell below that standard, mainly on account of the presence of the natural permanent harbourages, such as river banks, swamps, and waterholes. In these localities intensive poisoning was the only method of dealing with the situation effectively.

It is satisfactory to record that legal action had not to be resorted to during the whole of the campaign, and the ready response and co-operation of the farmers was most satisfactory. Ploughing of headlands, or fencing and grazing the cover, alternated with burning.

Poisoning operations were most extensive. The local Pest Boards in the district had relied for a considerable time on strychnine-coated wheat, distributed loose in 10 lb. tins. The farmers were expected to make up the baits and then lay them out in the paddocks; but to a large extent they were indifferent to the recommendations made in this regard until the urgency of the problem became apparent in 1933-34. The poison wheat itself was tested at the depôt on caged rats, but no deaths resulted after a week's feeding. Examination by the Government Analyst showed that certain samples contained very small quantities of strychnine only. It was decided that all poison used should be manufactured under Government supervision on the spot, and the strictest control was exercised so that baits issued would be effective. A depôt was opened in charge of a poisoning expert, with considerable knowledge and experience of phosphorus bread baits used as the medium for poisoning. The baits were made and wrapped in greaseproof paper during the early part of the campaign. (Later on it was found that this procedure was unnecessary, as the baits were used or destroyed within

the first two days.) They were packed in strong brown paper bags and labelled in accordance with regulations. Not only were they distributed to farmers and the general public, but their use was supervised and the results were carefully checked. Four and a-half million baits were manufactured at the depôt during the period of its operations. Of the first 18,000 baits distributed on the roads, 54 per cent. were taken—this figure does not include baits merely nibbled or partially taken—proving how favourable a harbourage spot the roads were. Within the district, nine areas were delimited, each in charge of an overseer. The overseer delivered the poison baits to all farmers at the time of their farm inspection, and delivered a report form to the farmer to be filled in and signed. They reinspected, checked up, collected all reports, and delivered further supplies of baits where necessary. At the same time they instructed farmers where and how to lay out the baits, and each overseer worked strictly to a time-table. Five baits were laid at intervals of five paces along all river and creek banks, around all swampy places, and the next adjacent four rows of cane.

A typical fortnightly routine was as shown:—

Monday	Deliver baits.
Tuesday	Deliver baits.
Wednesday	Re-inspect Monday's baiting.
Thursday	Re-inspect Tuesday's baiting.
Friday	Deliver baits.
Saturday	Report at office.
Monday	Re-inspect Friday's baiting.
Tuesday	Deliver baits.
Wednesday	Deliver baits.
Thursday	Re-inspect Tuesday's baiting.
Friday	Re-inspect Wednesday's baiting.
Saturday	Report at office.

During the first distribution, 1,007,775 baits, including approximately 30,000 red squill baits, were used; 1,107 deliveries of baits being made, and 1,302 visits of reinspection being carried out. Thirty-five per cent. of the baits were actually eaten, 30 per cent. partially eaten, and 10 per cent. nibbled. A marked difference was noticed during the second poisoning drive in the nature of the rats killed. The infestation had fallen to light rather than heavy, and field inspections revealed that the majority of rats were young to half grown. An officer of the Shire Council at this stage reported officially to his council as follows:—

> "A large proportion of the rats now being caught by me and forwarded to the Townsville Laboratory are of the young variety, and although I have been within the Shire since the plague scare of ten or twelve years ago poisoning and trapping rats, I have not at any time found so much difficulty in trapping as at present."

In the second campaign the district was divided into four areas, each with approximately 126 farms, and these again to three sub-areas, each of 42 farms. Officers were required to cover eight or nine farms per day, each subdivision being completed in two weeks, and each being cleared as far as possible before commencing on the next. During a total of six weeks, 734,598 baits were issued. 91·8 per cent. of the farmers reported a decrease; 4·6 per cent. of the farmers reported "no decrease"; 3·3 per cent, reported "unknown"; and 0·2 per cent. reported an increase. At the commencement of the campaign it had been estimated, after careful survey, that the percentages of attacked cane might be regarded as very heavy for 50 per cent. of the cases, heavy in 40 per cent., and light in 10 per cent. After the poison drives mentioned, 29·7 per cent. of the farmers reported "cane not attacked"; 37·2 per cent. reported "very little attacked"; 30·7 per cent. reported "attacked a little"; 2·4 per cent. reported "heavy attack"; and no farmer reported, as previously, "very heavy attack."

The last of the specially organised efforts (the third poison drive) was intended to mop up the rats which had taken cover in the permanent harbourages. At this stage of the campaign all roads round the cane farms in the infected areas were devoid of vegetation and cover. The farms were cleared of cane, dirty headlands had been burned, and the poison attack had been directed to those places where the rats had been forced to take refuge. Particular attention was devoted to river banks, swampy lands, waterholes, and forest country; 309,000 baits in all being distributed during five weeks.

Turtle.

Low-lying land kept clean by grazing.

A cleared and uncleared portion of road.

What grazing will do. A good comparison—Fenced off portion of road used for grazing. Note harbourage on unfenced part.

Apart from the organised drives, supplies of poison baits were made available to applicants, and a poisoning campaign was carried right through the town of Ingham on two occasions.

As a measure of control, comparative tests of the various poisons and materials were regularly carried out. It is the opinion of many authorities that the poison and its vehicle should be changed from time to time. This is particularly the experience in cities and towns where rats have a great variety of food from which to select. In the country areas it was found that the poison remained effective, and the rats did not learn to avoid it. In so far as the vehicle was concerned, a change from the vegetable diet, to which the rats were accustomed, was attained by using bread, and it proved satisfactory throughout the whole period. The rule observed in the manufacture of the baits was to provide a sufficient dose of poison on one bait small enough to be consumed in one or two bites and containing an effective dose in one bite. Successful kills were obtained by a-quarter to a-half inch cube of phosphorus bread. Bread has the disadvantage of drying quickly in hot weather, but it was the practice not to oversupply any farmer, although he was kept freshly supplied as often as necessary. Phosphorus very soon loses its potency, and this was an advantage in some respects. A bait which is claimed to last for long periods is apt to lead to neglect in regular baiting, apart from the fact that the claim is rarely substantiated in rainy areas where a multitude of other causes soon destroy its efficacy.

The disadvantage associated with wheat was the fact that the lethal dose was divided over a large number of grains. The Technical Adviser of the Macknade Pest Board reported on the 19th July, 1935, after a series of tests with thallium that "the average lethal dose indicated in these tests was approximately 164 grains"—a big series of wheat grains. It was found that if the wheat was laid out in a loose manner or in small packets the rat may only eat one-quarter or one-half of the wheat; 50 per cent. of such baits were found partially consumed. Wheat, moreover, has not the porosity of bread, though naturally its keeping qualities are greater from a commercial point of view. It was observed, too, that the rat often husks out the wheat, leaving the shell.

When arranging an extensive campaign where millions of baits are necessary, the two important factors are the certainty of the result and the cost of the materials and preparation. Most of the well-known poisons give excellent results if the correct dose is given, though they vary in time. Finance governs the situation in continuous campaigns, since the cheapest baits which will give effective results must, of necessity, be chosen. Phosphorus baits were manufactured at a cost of 3s. 6d. per thousand baits. Similarly, the wrapping of the phosphorus baits slowed up the output, increased the costs, and was ineffective, since once the packet was broken (50 per cent.), the value of the greased paper packing disappeared.

The following experiments, carried out at the depôt, might be of interest:—

1st day.—Two rats, without food for 12 hours, fed on strychnine wheat—all eaten—no result.
2nd day.—Further supply same poison—nearly all eaten—1 rat sick, other well. Sick rat recovered by evening.
3rd day.—Increased supply same poison, no result.
4th day.—Given ordinary bread and pumpkin seeds—all eaten.
5th day.—Given large dose of fresh strychnine on pumpkin seeds—all eaten—no result.
6th day.—No result, all well.

A number of similar tests were carried out with the same strychnine wheat, but no results were obtained. This seemed to point to the fact that a large number of rats had, by means of small doses, become immune to this class of bait.

The squill baits gave good results, and all tests at the depot proved successful, except one:—Two caged rats were given squill baits, and at the same time ordinary bread and pumpkin, so as not to force the eating of the squill. Baits remained untouched for four days, after which all were consumed, but no result. The rats were then given bread and phosphorus baits under the same conditions. Positive results within twenty-four hours. The phosphorus bait was taken from an air-tight tin, and was three weeks old. All fresh phosphorus bread baits proved successful in the tests carried out at the depot. The phosphorus syrup and the bread baits will retain their activity for a long time if stored in air-tight tins. Caged rats fed on "half" bread bait died within eighteen hours. Caged rats fed on "quarter" bread bait died within twenty-four hours.

The following test was carried out with "Thallium sulphate":—

1st day.—8 rats (2 full grown, 2 half grown) given "Thallene" baits.
2nd day.—All sick and staggering about the cages.
5th day.—5 young rats died—2 old rats recovering.
8th day.—2 old rats fully recovered.
15th day—2 old rats still alive.

(Kept alive for three weeks on ordinary food—given strychnine sulphate on bananas—all eaten, no effects. One week later—given four stock bread and phosphorus baits—one rat died second day—the other died on the third day. Well supplied with ordinary food and water during the whole test. All other tests with "Thallene" gave positive results.)

A tin of "Thallium sulphate wheat" was received in a wet and mouldy condition. Several tests with this wheat were made, but all caged rats positively refused to touch the baits. Squill and lard baits were also tested out, and were found successful in giving positive results on caged rats.

Field Tests.

An interesting test was made in order to obtain a comparison in the attractiveness of phosphorus and squill. The figures given show that the results are almost equal.

Phosphorus.		Squill.	
Laid out.	Taken.	Laid out.	Taken.
500	100 per cent.	500	98 per cent.
500	80 per cent.	200	100 per cent.
500	70 per cent.	300	50 per cent.
500	63 per cent.	300	93 per cent.
500	80 per cent.	300	100 per cent.

Many farmers had very successful results after using squill, and reported very favourably on its use as a rat killer. Others preferred the phosphorus, for the reason that dead rats were generally seen after this poison had been used. It is hard to convince some farmers that the presence of dead rats is not necessary to prove successful results. The proof lies in the lessened damage to the cane where the baits were laid out. The results obtained from the phosphorus and bread bait were very carefully checked up on the field, and through the whole period were found to give positive and successful results. A few of the results are as follows:—

Phosphorus and Bread.

Baits laid.	Baits taken.
1,000	930
500	490
500	400
750	500
500	490
500	430
500	480
500	475
500	300
500	340

A long list could be prepared, but these ten should be sufficient to show that the poison and material used during the campaign was attractive to rats. As a proof of their effectiveness the following cases are quoted:—

A farmer reported that the cane alongside a creek, the bed and banks of which were very thick with vegetation, was being badly attacked by rats. The creek at the time was practically dry, and before clearing he wished to poison. The creek banks, and four rows of the cane were heavily baited. On checking up the only evidence was the very strong smell of dead rats. Before the farmer had time to clear the harbourage rain fell and flooded the creek. Apart from those washed away, 75 dead rats, 2 water rats, and 10 bandicoots were floated on to the banks.

On a potato farm just outside the district the rats were reported to be in great numbers. An inspection was made, and parts of the farm were found to be veritable rat warrens. Some of the fields were riddled with rat burrows; 20,000 phosphorus baits were laid out, and within two days all had been taken. The employees could not approach the fields three days afterwards, so objectionable was the smell from the dead rats.

One farmer reported that when clearing sometime after poisoning he counted 200 carcasses. Many other instances of the effectiveness of phosphorus could be given.

Field tests with Thallium sulphate ("Thallene") were also made, and the following are recorded:—

One hundred "Thallene" baits laid out in a 13.4-acre field of cane. Placed whole length of four rows with a distance of ten rows at intervals. The poison was laid on squares of fertilizer bags, 15 to 20 yards apart.

1st day	20 per cent. eaten.
2nd day	60 per cent. eaten.
3rd day	100 per cent. eaten.

A live rat caught in canefield where poison was laid, fed on unpoisoned food, died next day.

A live rat caught where no poison laid kept for three days then fed on "Thallene" wheat—died on the third day.

A live rat caught where no poison was laid was fed on "Thallene" wheat; then fed on good unpoisoned wheat and water—died on the fourth day.

A caged rat fed on a "Thallene" wheat unbroken bait, which had been out in the field for four weeks—the bait was refused for two days and two nights, and eaten on the third night—the rat died two days later.

A caged rat fed on mouldy "Thallene" wheat, and one fresh "Thallene" wheat bait. It absolutely refused the mouldy bait, but readily consumed the fresh one—died five days later.

The following are the results obtained from a field experiment carried out on five separate farms by a farmer, a Pest Board's representative, and an Inspector from the Department:—

	Initial of Representative	Per cent
1st Night Out—		
Phosphorus (protected)	H.	27·0 attacked and consumed
	R.	25·0 attacked and consumed
	S.	22·0 attacked
		10·0 consumed
Phosphorus (unprotected)	H.	19·4 attacked and consumed
	R.	17·2 attacked and consumed
	S.	18·0 attacked
		6·0 consumed
Thallene (protected)	H.	10·5 attacked and consumed
	R.	9·5 attacked and consumed
	S.	16·0 attacked
		4·0 consumed
Strychnine (protected)	H.	12·8 attacked and consumed
	R.	12·8 attacked and consumed
	S.	14·0 attacked
		4·0 consumed
Thallium Sulphate (protected)	H.	6·6 attacked and consumed
	R.	7·7 attacked and consumed
	S.	8·0 attacked
		2·0 consumed
4th Night Out—		
Thallene (protected)	H.	45·5 attacked and consumed
	S.	58·0 attacked
		38·0 consumed
Phosphorus (protected)	H.	44·0 attacked and consumed
	S.	46·0 attacked
		18·0 consumed
Phosphorus (unprotected)	H.	24·0 attacked and consumed
	S.	23·0 attacked
		8·0 consumed
Thalliu (protected)	H.	22·2 attacked and consumed
	S.	25·0 attacked
		9·0 consumed
Strychnine (protected)	H.	17·2 attacked and consumed
	S.	31·0 attacked
		10·0 consumed

(The farmer evidently recognised the importance of the first night out as being the best test, as he did not show any interest in the subsequent checks.)

	Initial of Representative.	per cent.
14th Night Out—		
Thallene (protected)	H.	.. 79·4 attacked and consumed
	S.	.. 85·0 attacked
		.. 67·0 consumed
Phosphorus (protected)	H.	.. 62·6 attacked and consumed
	S.	.. 68·0 attacked
		.. 24·0 consumed
Thallium (protected)	H.	.. 41·7 attacked and consumed
	S.	.. 42·0 attacked
		.. 25·0 consumed
Strychnine (protected)	H.	.. 42·2 attacked and consumed
	S.	.. 48·0 attacked
		.. 19·0 consumed

The unprotected phosphorus was not included in this check up, as it has always been definitely recognised that when unprotected it is not a "long stayer," but is short, quick, and sure in its action.

These figures illustrate very clearly how difficult it is to get exact figures even from men working and collaborating with each other. In co-operation the baits were laid out, and checked up, but each made his own notes, and presented an individual report.

It was thought that a comparison of the extent of the rat damage to cane between the years 1934 and 1935 would provide valuable evidence as to whether the campaign efforts were being a success or otherwise. The overseers were, therefore, instructed to collect the necessary information from farmers who were willing to give the figures for these two years.

A record has been kept of the farmers who supplied the figures of tons of cane lost through rat damage, but the list is too lengthy to give in full, and has, therefore, been summarised in areas for easy comparison. The farmers' estimate does not agree with the mill estimate, but as the information is recorded as a matter of comparison, and to present the farmers' own views and observations, the discrepancy is not important.

Area.	No. of Farmers.	Estimated rat damage in tons.	
		1934.	1935.
Long Pocket	55	2,000	621
Lannercost	12	1,200	435
Trebonne	18	2,080	1,258
Beeva	15	711	322
Fairford	13	1,860	1,010
Stone River	13	734	368
Upper Stone	18	110	58
Victoria Estate	78	7,401	953
Halifax	26	2,588	651
Cordelia	8	700	145
Lilypond	8	800	278
Forrestholme	5	280	52
Gairloch	14	1,180	242
Halifax road (Ingham)	12	1,160	220
Hawkins Creek	21	3,350	844
Tara	4	530	223
Ripple Creek	7	525	420
Macknade	30	5,075	1,371
	357	32,464	9,471

71 per cent. of the farmers supplied the information.

Rat damage (farmers estimate) 1934	32,464
Rat damage (farmers estimate) 1935	9,471
	22,993

This estimated saving in rat-damaged cane is sufficient evidence in itself of the success of the campaign. It is confidently expected that a greater saving will be obtained from the 1936 crop, as a result of the Department's work.

In the meantime, inspections of cane to determine whether a disease risk existed were instituted in various other cane-growing areas. Health Inspectors were placed in each area to determine whether the situation demanded that the cane should be burnt before being cut. It was not an easy task to fight through heavy crops, intertwined with vines and creepers and weeds, and at the same time search the cane for evidences of rat damage. In dealing with the cutters and the farmers, each of whom was in a condition of some tension, tact, commonsense, and good judgment had to be exercised. The Inspectors proved their worth by the business-like and capable way in which they handled the situation, and both cutters and farmers in practically every instance assisted them in every possible way.

The percentage of cane which it was found necessary to burn on the ground of potential disease risk in the various areas concerned, is as shown in the following table:—

	Percentage of Acres Burned.
Victoria	11.6 per cent.
Macknade	2.6 per cent.
Tully	10.0 per cent.
Goondi	12.5 per cent.
South Johnstone	6.0 per cent.
Mourilyan	16.4 per cent.

At every place in which a case of Weil's disease, endemic typhus, or other suspicious circumstances occurred, a special report was obtained of all circumstances likely to affect the situation. Moreover, as considerable interest has been directed towards the nature of the organism concerned, and as it has been frequently pointed out that *Leptospiræ icterohæmorrhagiæ* is very responsive to the pH of the soil or water in which it lies, careful estimations were made in every instance in this regard. It has been observed since 1923 that "7-day fever" (*Leptospiræ hebdomadis*) occurs in the area, and produces cases generally of a trivial nature, some of which it is believed have been included in the past with diagnoses of Weil's disease, as, for the matter of that, have cases of endemic typhus, of which two, or perhaps three, varieties exist in the area.

It was particularly interesting, therefore, to find that a great majority of soils were those inimical to *L. icterohæmorrhagiæ* itself, and some figures in this connection are added, indicating the high acidity commonly found. It is to this acidity that the intermittent nature of the outbreaks is ascribed. Cases of "7-day fever" occur sporadically from time to time in the area throughout the whole season, but cases of Weil's disease with jaundice appear to be most common following heavy flooding, with much run-off and much water, not acid, lying for several days on the sodden ground. For three or four days after these very heavy downfalls, infection appears to be common. After the water has been lying for some time, it is presumed that it acquires an acidity opposed to the leptospiræ of Weil's disease. The water and soil tests are carried out with the greatest care, and confirmed by expert operators with full equipment in the Department of Agriculture and Stock, Brisbane. A series of examination figures is attached to indicate the nature of the results obtained from these tests.

List of pH Results from Samples of Soil and Water.

Lab. No.	Description.	pH value. (1 soil: 2 Water.)
Soils.		
2653	Fairford, Victoria Mill, No. 1, 16 acres	5·3
2654	Fairford, Victoria Mill, No. 2, 6·8 acres	5·7
2655	Lilypond, Victoria Mill, No. 1, 3·7 acres	5·4
2656	Lilypond, Victoria Mill, No. 2, 11·2 acres	5·2
2657	Fairford, Victoria Mill, from standing cane	5·6
2658	Fairford, Victoria Mill, cane cut, ploughed	5·4
2659	Hawkins Creek, Macknade Mill	6·0
2660	Ripple Creek, Macknade Mill, No. 1	5·4
2661	Ripple Creek, Macknade Mill, No. 2	5·4
2662	Lilypond, Macknade Mill	5·6

LIST OF pH RESULTS FROM SAMPLES OF SOIL AND WATER.

Lab. No.	Description.	pH value. (1 Soil: 2 Water.)
Soils.		
2665	Hawkins Creek, from field where cane was burned	5·4
2666	Hawkins Creek, from field of growing cane	5·8
2667	Hawkins Creek, from field of growing cane	5·3
2668	Hawkins Creek, after burning and cutting cane	5·5
2669	Ingham, from field of growing cane behind stables	5·9
2670	Ingham, 5 acre field cut green	5·7
2671	Hawkins Creek, from field of growing cane near burnt field	6·2
2672	Hawkins Creek, from 5 acre field ; cane burnt before cutting	6·3
2673	Halifax road, from field of growing cane, near stables	4·7
2674	Halifax road, field burnt before being cut, behind stables	5·9
2675	Hawkins Creek, from field of growing cane	5·4
2676	Hawkins Creek, cane burnt and cut, opposite side of road	6·1
2677	Halifax road, from field of growing cane, near stables	5·6
2678	Lilypond, field of growing cane, near bridge	5·6
2679	Victoria Estate, from field of growing cane	6·2
2680	Victoria Estate, from field where cane was burnt	6·5
2681	4-mile road, from field of growing cane near stables	5·4
2682	4-mile road, from field where cane was burnt and cut, near stables	5·6
2683	4-mile road, from field of growing cane near road	5·8
2684	4-mile road, from field of cane cut and burnt near road	5·3
2685	Victoria Estate, from field of growing cane near house	5·8
2686	Victoria Estate, from field of cane cut green near house	4·8
2687	Fairford road, cane growing on field	5·6
2688	Fairford road, from field where cane was burnt and cut	5·3
2689	Fairford road, from field where cane growing near house paddock	5·8
2690	Fairford road, from field where cane burnt and cut near Gedge's Crossing	5·5
2691	Fairford road, from field of growing cane near house	6·3
2692	Fairford road, from cane burnt and cut near tramline	5·2
2693	Long Pocket, from field growing cane near house	5·0
2694	Long Pocket, from field where cane burnt and cut	4·8
2695	4-mile, from field where cane cut green	5·0
2696	Macknade, field growing cane near house	5·8
2697	Macknade, cane burnt and cut near barracks	5·5
2698	Ripple Creek, field growing cane near house	5·7
2699	Ripple Creek, cane burnt and cut near house	5·3
2700	Tara, field of growing cane near house	5·3
2701	Tara, cane burnt and cut	5·5
2702	Tara, field growing near house cane	5·8
2703	Tara, cane burnt and cut near stables	4·9
2704	Gairloch, growing cane near house	5·6
2705	Gairloch, cane burnt and cut near house	5·7
2706	Ripple Creek, field growing cane at side of farm	6·0
2707	Ripple Creek, cane burnt and cut near road	5·8
2708	Ripple Creek, field growing cane near road	5·6
2709	Ripple Creek, cane burnt and cut near road	5·5
2710	Halifax road, from field of growing cane near barracks	5·1
2711	Halifax road, where cane has been burnt and cut near house	5·3
2712	Halifax road, where cane has been burnt and cut near lagoon	4·3
2713	Halifax road, where cane has been burnt and cut behind stables	5·2
2714	Halifax road, field growing cane near stables	5·9
2715	Halifax road, field of plant cane near King's farm	5·0
2716	Halifax field of growing cane	5·3
2717	Halifax, field where cane was burnt and cut	5·5
2718	Halifax, field of growing cane	5·8
2719	Halifax, field where cane was burnt and cut	5·7
2720	Halifax, field of growing cane	6·3
2721	Halifax, field where cane was burnt and cut	6·1
2722	Halifax, field of growing cane	6·7
2723	Hawkins Creek, field of growing cane near C.S.R. line	4·6
2724	Hawkins Creek, field where cane was burnt and cut opposite C.S.R. line	5·9
2725	Hawkins Creek, field of growing cane near barracks	5·4
2726	Hawkins Creek, field where cane was burnt and cut near house	5·5
2727	Hawkins Creek, field where cane was burnt and cut near Hawkins Creek	5·3
2728	Hawkins Creek, field of growing cane near road	5·2
2729	Hawkins Creek, field of growing cane near road	5·3
2730	Hawkins Creek, from field where cane was burnt and cut near river	5·7
2731	Hawkins Creek, from field of growing cane near stables	5·7
2732	Hawkins Creek, from field where cane was burnt and cut near C.S.R. line	5·7
2733	Hawkins Creek, from field of growing cane across creek	5·3
2734	Hawkins Creek, from field where cane was burnt and cut behind house	5·8
2735	Halifax, from field where cane was burnt and cut	5·8
2753	Banna, clear paddock	5·1
2754	Mourilyan, paddock at corner main road	5·7
2755	Mount Sophia, clear paddock	5·4
2756	Mount Sophia, paddock growing cane	4·7
2757	Mena Creek, soil from cleared paddock	5·1
2758	Highleigh (Case E. Walk)	5·5
2945	Goondi, from cane block on river flat	5·6
2946	Upper Daradgee, from flat near creek	5·7
2947	Mourilyan, from river flat cane block	6·1
2948	South Johnstone, from cane paddock, river flat	6·1
2949	Garradunga, paddock on flat near creek	5·9

LIST OF pH RESULTS FROM SAMPLES OF SOIL AND WATER.

Lab. No.	Description.	pH value. (1 Soil : 2 Water.)
Waters.		
A.1240	4-mile, from creek within farm	5·9
A.1241	4-mile road, from creek near house and stables	6·1
A.1242	Victoria Estate, from field drain to road	6·0
A.1243	4-mile road, Victoria Estate, from lagoon behind house	6·1
A.1244	Fairford road, from surface drain near house paddock	6·3
A.1245	Fairford road, from lagoon behind house	6·2
A.1247	Tara, swamp near house	5·7
A.1248	Ripple Creek, surface drain behind house	6·0
A.1249	Macknade, swamp, centre of farm	6·0
A.1250	Tara, surface drain near barracks	6·0
A.1251	Gairloch, swamp between fields near stables	6·0
A.1252	Ripple Creek, from surface field drain in plant cane near road	6·6
A.1253	Halifax, from water course draining canefields	6·5
A.1254	Halifax road, no particulars	6·4
A.1255	Hawkins Creek, field drain in field of growing cane	5·9
A.1256	Halifax road, from lagoon in centre of farm	7·5
A.1257	Hawkins Creek, from field drain	5·9
A.1258	Halifax, no particulars	5·9
A.1259	Halifax, no particulars	6·4
A.1260	Hawkins Creek, from field of growing cane near road	6·0
A.1261	Hawkins Creek, from drain on edge of canefields near road	6·4
A.1262	Hawkins Creek, from drain near C.S.R. line	6·1
A.1263	Hawkins Creek, from creek behind house	6·5
A.1264	Halifax, no particulars	6·2
A.1265	Halifax road, from creek near barracks and stables	7·7
A.1450	Water from creek at foot of paddick on flat	5·9
A.1451	From pool near river flat	5·2
A.1452	Upper Daradgee, from running creek near flat	6·0
A.1465	Banna, water dirty	5·9
A.1466	Mourilyan, water clear	6·1
A.1467	Roma's, Mount Sophia, water dirty	6·0
A.1468	Maher's, Mount Sophia, water dirty	5·9
A.1469	C. Myers, Mena Creek, water clear	6·1
A.1470	Matthews Brothers, (Case E. Walk), water dirty	6·0

Appendix D.

REPORT OF THE X-RAY AND OTHER ELECTRO-MEDICAL EQUIPMENT ADVISORY BOARD.

1935-36.

The Board comprises the following members appointed by Executive Minute on the 1st May, 1935:—

Sir Raphael West Cilento, Kt., M.D., Univ. Adel., Director-General of Health and Medical Services;

Valentine McDowall, M.B., Ch.M., Univ. Syd.;

Arthur Boyd, B.E., D.Sc., M.I.E.E., Assoc.M.Inst.C.E.; and

George William Watson, M.V.O., Under Secretary, Chief Secretary's Department, with the functions and duties as defined in the Schedule attached to the notification of appointment.

The Board is under obligation to furnish an Annual Report to the Minister upon its activities, and desires to submit the following information:—

During the year an exhaustive inquiry was made into X-ray and other electro-medical provision existing within the State of Queensland. A questionnaire was forwarded to all hospitals, and replies were received from all with the exception of Rockhampton, Nanango, Camooweal, and Chillagoe, about which information is still lacking. A careful comparison was made of the necessities of each locality as evidenced by its population, its hospital facilities, its isolation, or special circumstances, and the information thus derived was compared with standards arrived at in other States, and set down as suitable to the various sets of circumstances under consideration. The Board was gratified to find that, with few exceptions, the provision made at hospitals was in accordance with their necessities. It was observed that certain of the machines in operation were, if not obsolete, at least obsolescent, and information to that effect was transmitted to the hospitals affected. General information was recorded. The Board determined that, when the location and quality of the X-ray equipment of the various hospitals in Queensland had been set out, a general survey of the State would not only permit any gaps to be filled, but would also allow the provision of larger plants to growing hospitals, the transfer of other plants to smaller areas as yet unprovided, and the provision of the necessary liaison between small centres and larger hospitals, which might be regarded as base units or consultative stations. Through the courteous assistance of officials interested in similar problems in neighbouring States, particulars of specifications for various grades of plants were drawn up by the expert members of the Board. These specifications have, from time to time, been improved, and are now, it is thought, standardised to meet all exigencies.

In many instances, it was found that hospital plants were receiving service visits from the makers from time to time, and an arrangement was made that in all cases where such service visits are paid, copies of the report should be forwarded to the Board. A form was cyclostyled for the purpose of distributing to hospitals generally.

In connection with diathermy apparatus, the Board found itself in some difficulty. There appears to be a tendency to apply surgical diathermy to a degree that is, perhaps, unjustified in some localities. Applications in this regard were, therefore, carefully scrutinised. Diathermy in the hands of other than specialists may be dangerous, and in cases of skin cancer it was generally felt that where these were such that they could not be treated by local application of carbon dioxide snow, it was preferable that they should be referred to one of the larger centres for treatment rather than that they might be handled in such a way that, while apparent cure on the surface resulted, actually expansion went on beneath the surface to a degree that was unrecognised until the correction of the case had become considerably more difficult.

With a view to assisting hospitals in a general way, a publication, printed by the Commonwealth Department of Health, and entitled "X-ray and Radium Protection," was forwarded to larger hospitals, and abstracts were taken and enlarged on in certain particulars and forwarded as a series of notes to smaller hospitals.

Certain difficulties arose in respect of applications for X-ray plants. It was commonly found that the requirements essential to the installation of a plant were not adequately apprehended in smaller hospital areas. This was of importance, principally in connection with the electrical supply available, if any. It was found also that there was a general failure to appreciate the fact that X-ray work is a speciality, and that the provision of a first-class apparatus does not necessarily give good service unless the operator has special knowledge and can interpret the resulting skiagrams. This was particularly felt to be the case with regard to the interpretation of barium meal pictures, taken very frequently by operators unskilled in the interpretation of what is, perhaps, one of the most difficult of diagnostic procedures.

At the outset it had been laid down by the Board that, except in special circumstances, it was undesirable to provide X-ray plants to hospitals with very small daily averages in respect of patients, or with minimal capacity in respect of beds. After consideration, however, by the Minister, the Board was advised that there appeared to be a strong feeling that X-ray plants capable of fracture work should be placed in all small hospitals. This point of view was one that the Board felt was fully justified, and its standards were modified accordingly. It was recognised that once an X-ray plant is provided to a hospital, it is quite impossible to limit the type of work done by the plant, or the opinions or diagnoses based upon it, and it was recognised also that the provision of small plants to very small hospitals necessarily involved applications for better-class plants from all hospitals above that rank. This materially affected the standards in all groups.

During the year applications for X-ray plants were approved for Augathella, Atherton, Ayr, Childers, Gordonvale, Innisfail, and Mundubbera. Several applications were pending at the close of the year. Diathermy apparatus was approved for the Quilpie Hospitals Board, and many applications for minor portions of plant or apparatus were dealt with.

Requests for information regarding suitable machines were received from several hospitals, and the information made available accordingly.

During the year considerable attention was directed towards the provision, in conjunction with the Department of Public Works, of standard rooms for standard types of plant. These plans are now reaching finality, and it is hoped shortly that the Board may be able, on application, to provide not only complete specifications for suitable plants for all circumstances, but to add standardised plans showing suitable accommodation and the best layout for both operating and developing rooms in connection with each X-ray plant.

It has already been possible in this direction to contribute materially to the efficiency and economy of routine working in several hospitals.

R. W. CILENTO (Chairman).
A. BOYD.
V. McDOWALL.
G. W. WATSON.

ANNUAL REPORT

OF THE

INSPECTOR OF HOSPITALS FOR THE INSANE

FOR

1935-36.

Including the Rockville Epileptic Home, Willowburn, and the Male and Female Detention Wards, Benevolent Asylum, Dunwich.

Information Contained in the Report of the Inspector of Hospitals for the Insane for the Year 1935-36.

Sir,—I have the honour, in compliance with section 60 of "*The Insanity Act of* 1884," to present a report on the State Hospitals for the Insane and the Townsville Reception House in Queensland for the twelve months from 1st July, 1935, to 30th June, 1936.

HOSPITAL FOR THE INSANE, GOODNA.

—	Males.	Females.	Total.
Number of patients in residence in the Hospital on 1st July, 1935	1,003	621	1,624
Number on leave of absence on 1st July, 1935	9	31	40
Total on the books of the Hospital on 1st July, 1935	1012	652	1,664
Admissions, including readmissions and transfers, during the twelve months ending 30th June, 1936	278	207	485
Total on books and under treatment during twelve months	1,290	859	2,149

	Males.	Females.	Total.
Discharged and transferred	174	167	341
Died	111	59	170

	Males.	Females.	Total.
Total discharges, transfers, and deaths	285	226	511
Remaining on the books of the Hospital on 30th June, 1936	1,005	633	1,638
Number on leave of absence on 30th June, 1936	11	10	21
Number of patients in residence in the Hospital on 30th June, 1936	994	623	1,617
Average number daily resident during the twelve months	1,034	626	1,660

The admissions, including readmissions, for the previous corresponding twelve months—viz., from 1st July, 1934, to 30th June, 1935—were 322 males, 210 females, total 532, as compared with 278 males, 204 females, total 482, during the last twelve months, showing a decrease of 44 males, 6 females, making a total decrease of 50 admissions during the past twelve months ending on 30th June, 1936.

The following table gives the number of patients in residence at this hospital at the end of each year for the past twenty-seven and a-half years, together with the daily average and the total number under treatment for each year respectively. The period 1926-27 is for eighteen months, while the following periods are each for twelve months ending on 30th June each year:—

Year.	In Residence at the end of each year.	Daily Average Resident during each year.	On Books and under Treatment during each Year.		
			Total Number.	Increase.	Decrease.
1909	1,214	1,199	1,561	..	..
1910	1,247	1,270	1,558	..	3
1911	1,229	1,264	1,626	68	..
1912	1,268	1,253	1,625	..	1
1913	1,313	1,303	1,672	47	..
1914	1,381	1,363	1,767	95	..
1915	1,340	1,368	1,755	..	12
1916	1,397	1,399	1,763	8	..
1917	1,395	1,436	1,807	44	..
1918	1,283	1,430	1,770	..	37
1919	1,353	1,337	1,740	..	30
1920	1,388	1,381	1,792	52	..
1921	1,358	1,383	1,810	18	..
1922	1,437	1,424	1,852	42	..
1923	1,352	1,379	1,914	62	..
1924	1,323	1,357	1,812	..	102
1925	1,368	1,390	1,756	..	56
1926–27 (18 months)	1,428	1,422	2,014	258	..
1927–28 (12 months)	1,438	1,462	1,864	..	150
1928–29 (12 months)	1,481	1,492	1,852	..	12
1929–30 (12 months)	1,499	1,526	1,903	51	..
1930–31 (12 months)	1,511	1,535	1,893	..	10
1931–32 (12 months)	1,563	1,578	1,968	75	..
1932–33 (12 months)	1,601	1,602	2,026	58	..
1933–34 (12 months)	1,571	1,625	2,104	78	..
1934–35 (12 months)	1,624	1,636	2,135	31	..
1935–36 (12 months)	1,607	1,660	2,149	14	..

Admissions.

The following table gives an analysis of the admissions—viz., admissions for the first time, readmissions and admissions by transfer—for each year for the past twenty-seven and a-half years, together with the totals for the whole of this period. The period *1926-27 is for eighteen months.

Year.	Admissions.			Readmissions.			Transfers.			Total.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females	Total.	Males.	Females.	Total.
1909 ..	181	90	271	24	15	39	..	..	..	205	105	310
1910 ..	177	92	269	30	12	42	..	..	..	207	104	311
1911 ..	199	99	298	31	16	47	..	..	..	230	115	345
1912 ..	206	109	315	33	23	56	1	..	1	240	132	372
1913 ..	196	114	310	32	38	70	3	1	4	231	153	384
1914 ..	240	145	385	33	21	54	1	1	2	274	167	441
1915 ..	190	107	297	38	23	61	..	..	..	228	130	358
1916 ..	220	108	328	31	34	65	1	..	1	252	142	394
1917 ..	180	116	296	40	33	73	..	1	1	220	150	370
1918 ..	191	122	313	29	31	60	1	1	2	221	154	375
1919 ..	227	133	360	28	34	62	1	..	1	256	167	423
1920 ..	215	112	327	43	34	77	..	3	3	258	149	407
1921 ..	184	128	312	40	33	73	..	2	2	224	163	387
1922 ..	244	134	378	42	44	86	1	3	4	287	181	468
1923 ..	230	140	370	30	29	59	1	2	3	261	171	432
1924 ..	219	125	344	40	30	70	2	3	5	261	158	419
1925 ..	202	113	315	47	40	87	1	..	1	250	153	403
1926–27*	304	168	472	72	59	131	4	2	6	380	229	609
1927–28 ..	203	127	330	41	40	81	..	...	..	244	167	411
1928–29 ..	194	114	308	40	45	85	..	4	4	234	163	397
1929–30 ..	207	119	326	40	40	80	1	1	2	248	160	408
1930–31 ..	168	121	289	46	37	83	2	2	4	216	160	376
1931–32 ..	221	122	343	49	42	91	1	..	1	271	164	435
1932–33 ..	183	146	329	50	44	94	1	1	2	234	191	425
1933–34 ..	208	166	374	54	41	95	..	2	2	262	209	471
1934–35 ..	280	151	431	42	59	101	1	1	2	323	211	534
1935–36 ..	225	161	386	53	43	96	..	3	3	278	207	485
Total for past 27½ years ..	5,694	3,382	9,076	1,078	940	2,018	23	33	56	6,795	4,355	11,150

* This period is for 18 months.

The above table shows that, excluding the three transfers, the admissions and readmissions, forming a total of 482 patients, during the past twelve months ending 30th June, 1936, is the second-highest admission record during any twelve months since the opening of this hospital in 1864.

Causes of Insanity in the Admissions.

Of the predisposing causes for the twelve months ending 30th June, 1936, previous attacks heads the list with 62 males, 62 females, total 124, forming 22·30 per cent. males, 30·39 per cent. females, total 25·72 per cent., based on the admissions and readmissions, as compared with a total of 148 or 27·81 per cent., for the previous twelve months ending on 30th June, 1935.

Heredity, ascertained, as a predisposing cause was present in 43 males, 48 females, total 91, or males 15·46 per cent., females 23·52 per cent., total 18·87 per cent., as compared with a total of 109, or 19·56 per cent., for the previous twelve months. Senility was a predisposing cause in 57 males, 21 females, total 78, or 16·18 per cent., as compared with a total of 83, or 15·60 per cent., for the preceding twelve months. Congenital causes were present in 22 males, 23 females, total 45, forming 9·33 per cent., as compared with a total of 28 and a percentage of 5·26 on all admissions and readmissions for the previous twelve months.

Of the exciting or contributory causes, the various moral causes were present in 23 males, 8 females, total 31, forming 8·27 per cent. males, females 3·92 per cent., total 6·43 per cent. of the total admissions, as compared with a total of 66, or 13·66 per cent., for the previous twelve months. The more varied exciting or contributory causes ascertained are the physical causes, which collectively numbered: Males 89, or 32·01 per cent., females 38, or 18·62 per cent., total 127, or 26·34 per cent. of the total admissions, as compared with a total of 199 or 37·40 per cent. for the previous twelve months. Of these, general bodily ill-health was the heaviest exciting cause, with 31 males, 18 females, total 49, forming percentages of 11·15 males, 8·8 females, total 10·16 per cent. Alcohol was a cause in 10 males, 4 females, total 14, forming percentages of 3·59 males, 1·96 females, total 2·90 per cent. Epilepsy was present in 16 males, 12 females, total 28, giving percentages of 5·75 males, 5·87 females, total 5·80 per cent. Of these 7 males, 5 females, total 12, were congenital epileptics. There were 35 males, 27 females, total 62, or 12·86 per cent. of all the admissions, in which no causes were ascertained.

Mental Diseases of those Admitted.

Of the 278 males, 204 females, total 482 patients admitted, including readmissions, during the twelve months ending on 30th June, 1936, there were 61 males, 68 females, total 129 or 26·76 per cent. of the admissions, diagnosed as suffering from the various forms of manic depressive insanity, of whom 21 males, 23 females, total 44, or 34·10 per cent., were cases of maniacal phase, forming 9·12 per cent. of the admissions. The different forms of melancholia were diagnosed in 37 males, 32 females, total 69, or 53·48 per cent. of the manic depressive cases, or 14·31 per cent. of the admissions. Recurrent and alternating forms of this mental disease were found in 3 males, 13 females, total 16, or 3·31 per cent of the admissions. There were 13 males, 14 females, total 27, forming 5·60 per

Aerial view of new Male Wards Nos. 6, 7, and 8, Mental Hospital, Goodna.

New Male Ward No. 8, Mental Hospital, Goodna. Admission ward for quiet recoverable patients.

cent. of the admissions, diagnosed as suffering from acute confusional and exhaustion psychosis. The various forms of alcoholic psychosis were found in 10 males, 4 females, total 14, or 3·59 per cent. males, 1·96 per cent. females, total 2·90 per cent. General paralysis of the insane was diagnosed in 11 males, 1 female, total 12, or 3·95 per cent. males, 0·49 per cent. females, total 2·48 per cent. Corroborative evidence of the diagnoses in these cases was procured by obtaining a definitely positive Wassermann reaction in each case.

Schizophrenia was diagnosed in 53 males, 37 females, total 90 cases, or 18·67 per cent. Other forms of dementia, including cases of chronic cortical atrophy and senile dementia, accounted for 67 males, 27 females, total 94, or 18·50 per cent. of the admissions. There were 30 males, 23 females, total 53 cases of paraphrenia, making a percentage of 10·99, while 2 males, 1 female, total 3, or 0·62 per cent. of the admissions, suffered from paranoia. Epilepsy was present in 16 males, 12 females, total 28, or 5·80 per cent.; of these, a total of 16, or 3·31 per cent., were cases of acquired epilepsy, while 12, or 2·48 per cent., were cases of congenital epilepsy. The total congenital cases, both with and without epilepsy, were 22 males, 23 females, total 45, or 9·33 per cent. of the admissions.

Bodily Health of Patients on Admission.

The following tables show the bodily condition of patients on admission, and the percentage of each class to the number admitted during each year for the past twenty-seven and a-half years respectively. Table 1 is compiled on the results of the medical examination of each patient's physical condition immediately on admission, or as soon as it is possible to make such an examination. The period 1926-27 is for eighteen months ending on 30th June; all other periods before this time end on 30th December, and are for the twelve calendar months, while those subsequent to this period are for twelve months ending on 30th June:—

No. 1 Table.

Year.	In Good Health.			In Indifferent Health.			In Bad Health.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1909..	51	22	73	111	56	167	43	27	70
1910..	67	24	91	61	32	93	79	48	127
1911..	46	22	68	54	48	102	130	45	175
1912..	40	16	56	66	49	115	133	67	200
1913..	51	18	69	95	47	142	82	87	169
1914..	92	48	140	71	52	123	110	66	176
1915..	55	21	76	70	47	117	103	62	165
1916..	74	40	114	99	44	143	78	58	136
1917..	68	38	106	83	63	146	69	48	117
1918..	58	41	99	87	63	150	75	49	124
1919..	78	71	149	103	50	153	74	46	120
1920..	68	30	98	80	48	128	110	68	178
1921..	65	47	112	98	73	171	61	41	102
1922..	47	42	89	115	67	182	124	69	193
1923..	32	51	83	129	51	180	99	67	166
1924..	43	31	74	99	81	180	117	43	160
1925..	23	25	48	124	84	208	102	44	146
1926-27	70	76	146	156	95	251	150	56	206
1927-28	57	62	119	118	60	178	69	45	114
1928-29	51	51	102	89	57	146	94	51	145
1929-30	60	54	114	85	68	153	102	37	139
1930-31	76	61	137	75	56	131	63	41	104
1931-32	69	49	118	100	59	160	101	56	157
1932-33	68	65	133	80	71	151	85	54	137
1933-34	83	73	156	98	79	177	81	55	136
1934-35	95	72	167	113	85	198	114	53	167
1935-36	81	68	149	108	85	193	89	51	140
Totals for past 27½ years—	1668	1218	2886	2567	1670	4237	2537	1434	3971

No. 2 Table.

Year.	In Good Health.			In Indifferent Health.			In Bad Health.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1909	24·87	20·95	23·54	54·14	53·33	53·87	20·97	25·71	22·58
1910	32·36	23·07	27·26	29·46	30·76	29·20	38·15	46·15	40·82
1911	20·00	19·13	19·71	23·47	41·73	29·56	56·52	39·13	50·75
1912	16·73	12·12	15·99	27·61	37·12	30·99	55·64	50·75	53·90
1913	22·07	11·02	17·96	41·12	31·12	36·97	35·49	57·61	44·01
1914	33·69	28·91	31·89	26·00	31·32	28·01	40·29	39·75	40·09
1915	24·12	16·15	21·22	30·70	36·15	32·68	45·17	47·69	46·08
1916	29·48	28·16	29·00	39·44	30·98	36·38	31·07	40·84	34·60
1917	30·90	25·50	28·73	37·72	42·28	39·56	31·32	32·21	31·70
1918	26·24	26·62	26·40	39·81	41·55	40·52	33·48	31·81	33·06
1919	30·31	42·51	35·15	40·55	29·94	36·34	29·13	27·54	28·50
1920	26·35	20·54	24·25	31·00	32·87	31·68	42·63	46·57	44·05
1921	29·01	29·19	29·09	43·75	45·34	44·41	27·23	25·46	26·49
1922	16·43	23·86	19·18	40·21	38·06	39·22	43·35	39·20	41·59
1923	11·96	30·17	19·15	49·80	36·17	42·05	8·22	39·64	38·78
1924	16·60	20·00	17·87	38·22	52·25	43·47	45·17	27·74	38·64
1925	9·20	16·33	11·91	49·60	54·90	51·61	41·20	28·75	36·47
1926-27	18·61	33·48	24·21	41·48	41·84	41·62	39·89	24·22	34·16
1927-28	23·36	37·12	28·95	48·36	35·92	43·30	28·27	26·94	27·73
1928-29	21·79	32·07	25·95	38·03	35·84	37·15	40·17	32·07	36·64
1929-30	24·33	33·96	28·07	34·81	42·76	37·68	41·29	23·27	34·23
1930-31	35·51	38·60	36·82	35·04	35·44	35·21	29·43	25·94	27·95
1931-32	25·5	29·87	27·18	37·03	35·97	36·63	37·40	34·14	36·17
1932-33	29·18	34·21	31·44	34·33	37·36	35·69	36·48	28·42	32·86
1933-34	31·67	35·26	33·26	37·40	38·16	37·73	30·91	26·57	28·99
1934-35	29·50	34·28	31·59	35·09	40·47	37·21	35·40	25·23	31·39
1935-36	29·13	33·33	30·91	38·84	41·66	40·04	32·01	25·00	29·04
For 27½ years	24·63	28·18	26·01	37·90	38·63	38·19	37·46	33·17	35·70

Ages of Patients on Admission.

Of the 278 males, 204 females, total 482 patients admitted, including readmissions, during the past twelve months ending on 30th June, 1936, 14 males, 13 females, total 27, or males 5.03 per cent., females 6.37 per cent., total 5.60 per cent. of the admissions, were under twenty years of age. Between the ages of twenty and fifty there were 133 males, 130 females, total 263 admissions, making the following percentages on the total admissions:—Males 47·84 per cent., females 63·72, total 54·56 per cent. Those admitted between the ages of fifty and seventy numbered 86 males, 45 females, total 131, making 30·93 per cent. males, 22·05 per cent. females, total 27·17 per cent. Of the senile cases admitted over seventy years of age there were 43 males, 14 females, total 57, or 15·46 per cent. males, females 6·86 per cent., total 11·82 per cent. There were 2 males, 2 females, total 4, or 0·83 per cent., whose ages were unknown.

Religious Persuasions of Patients Admitted.

Of the 278 males, 204 females, total 482 patients admitted during the twelve months ending on 30th June, 1936, 257 males, 201 females, total 458, or 95·02 per cent., belonged to the various Christian religions and denominations. Of these, the various Protestant religions and denominations accounted for 160 males, 139 females, total 299, or 62·03 per cent. The Church of England was represented by 103 males, 77 females, total 180, or 37·34 per cent. of the admissions. The Presbyterian Church accounted for 26 males, 21 females, total 47 admissions, or 9·75 per cent., and of the various nonconformist religions and denominations there were 31 males, 41 females, total 72, or 14·93 per cent. of the admissions.

The Roman Catholic Church was represented by 92 males, 62 females, total 154 admissions, giving 31·95 per cent., and the Greek Church by 5 males, total 5, or 1·03 per cent. Non-christian religions of all kinds were represented by

2 males, 0 females, total 2, or ·41 per cent. There were 5 males, 0 females, total 5, or 1·03 per cent., who were said to have no religious beliefs, while finally there were 14 males, 3 females, total 17, or 3·52 per cent., whose religious persuasions were unknown.

Conjugal Condition of Patients Admitted.

Of the admissions, 150 males, 85 females, total 235, or 48·75 per cent., were single. Those admitted who were married numbered 98 males, 94 females, total 192, or 39·83 per cent., while those widowed accounted for 25 males, 25 females, total 50, or 10·37 per cent. One male admission, or ·20 per cent., was divorced. Finally there were 4 males, 0 females, total 4, or ·82 per cent. of the admissions, of whom the conjugal conditions were unknown.

Birthplaces of Patients Admitted.

There were 249 males, 192 females, total 441, or 91·49 per cent. of the admissions, born in the British Empire. Of these, 180 males, 155 females, total 337, or 69·50 per cent., were born in Australasia, of whom only 3 males, 0 females, total 3, were born outside Australia, leaving 68·87 per cent. born within the Commonwealth. Those born in Queensland numbered 144 males, 137 females, total 281, or 58·29 per cent. of the admissions, of whom 1 male, 0 females, total 1, was an aboriginal. Those admitted who were born in the United Kingdom and Ireland were 67 males, 35 females, total 102, making a total percentage of 21·16, and of these 40 males, 20 females, total 60, or 12·44 per cent. of the admissions, were born in England. Other parts of the British Empire contributed only 2 males, 2 females, total 4, to the admissions, while those born outside the British Empire numbered 18 males, 6 females, total 24, or 4·97 per cent.; of these latter there were 15 males, 5 females, total 20, or 4·14 per cent., born in Europe, Italy and Greece each contributing the greatest numbers—viz., 2 males, 2 females, total 4, or 0·82 per cent. from the former, and 4 males, 0 females, total 4, or 0·82 per cent. of the admissions from the latter country. There were 11 males, 6 females, total 17 patients, or 3·52 per cent., admitted whose birthplaces were unknown.

Discharged Recovered.

The discharges recovered for the twelve months ending on 30th June, 1936, were 141 males, 104 females, total 245, returning the following percentages on the admissions.—Males, 50·71, females 50·98, total 50·83 per cent., as compared with the discharges recovered and the recovery rate per cent. for a similar period ending on 30th June, 1935, viz., 123 males, 94 females, total 217, or 38·19 per cent. males, females 44·76 per cent., total 40·78 per cent.

The following tables show the number of recoveries and the recovery rate per cent. for each year respectively during the past twenty-seven and a-half years, together with the total number of recoveries and the recovery rate for the whole of the above period collectively. The period 1926-27 is for eighteen months:—

Table No. 1—Recoveries.

Year.	Males.	Females.	Total.
1909	68	38	106
1910	90	45	135
1911	106	66	172
1912	85	72	157
1913	112	71	183
1914	131	79	210
1915	103	73	176
1916	99	90	189
1917	104	72	176
1918	86	87	173
1919	86	88	174
1920	118	87	205
1921	110	81	191
1922	115	82	197
1923	139	98	237
1924	125	93	218
1925	93	83	176
1926-27 (18 months)	161	103	264
1927-28 (12 months)	111	97	208
1928-29 (12 months)	110	77	187
1929-30 (12 months)	107	81	188
1930-31 (12 months)	95	71	166
1931-32 (12 months)	103	84	187
1932-33 (12 months)	96	80	176
1933-34 (12 months)	132	81	213
1934-35 (12 months))	123	94	217
1935–36 (12 months)	141	104	245
Total Recoveries for past 27½ years	2,949	2,177	5,126

Table No. 2—Recovery Rates on the Admissions.

Year.	Males.	Females.	Total
1909	33·17	38·19	34·19
1910	43·43	43·27	43·41
1911	46·09	57·39	49·85
1912	35·56	54·54	42·31
1913	49·12	46·71	48·15
1914	47·98	47·59	47·83
1915	45·17	56·15	49·16
1916	39·14	63·38	48·09
1917	47·27	48·32	47·69
1918	39·09	56·86	46·38
1919	33·82	52·69	41·23
1920	45·73	59·59	50·74
1921	49·17	50·31	49·60
1922	40·21	46·06	42·45
1923	53·66	57·98	55·37
1924	48·26	60·00	52·65
1925	37·35	54·24	43·78
1926-27 (18 months)	42·81	45·37	43·78
1927-28 (12 months)	45·49	58·08	50·61
1928-29 (12 months)	47·00	48·42	47·58
1929-30 (12 months)	43·32	50·94	46·31
1930-31 (12 months)	44·39	44·93	44·62
1931-32 (12 months)	38·15	51·21	43·09
1932-33 (12 months)	41·18	42·10	41·61
1933-34 (12 months)	50·38	39·13	45·41
1934-35 (12 months)	38·19	44·76	40·78
1935–36 (12 months)	50·71	50·98	50.83
Recovery rate for past 27½ years	43·54	50·37	46·20

To obtain a more accurate rendering of the number of recoveries and recovery rates, the following figures include the recoveries which took place from the Townsville Reception House, from which institution a large number of patients are received into this hospital; but those discharged recovered have not been included in the two preceding tables, also any recoveries which may take place from Ipswich Mental Hospital, which receives all its admissions by transfer from Goodna.

Recreation Section of Dining Room, new Male Wards Nos. 6, 7, and 8, Mental Hospital, Goodna.

Dormitory—New Male 8 Ward, Mental Hospital, Goodna.

—	Goodna.			Goodna, plus Townsville Reception House, and Ipswich Mental Hospital.		
	Males.	Females	Total.	Males.	Females	Total.
Admitted and readmitted	278	204	482	287	207	494
Discharged, recovered	141	104	245	151	108	259
Percentage of recoveries on admissions	50·71	50·98	50·83	52·61	52·17	52·42

As pointed out in previous annual reports it should be borne in mind that in the Brisbane General Hospital there is a mental ward in which are treated incipient and early and curable mental diseases prior to certification, and which would in many instances otherwise have been sent to Goodna, and which would markedly raise the number of recoveries and the recovery rate here. But as these recoveries take place in patients who have not been certified as insane, and the State Mental Hospitals only receive certified patients, these cases are not included.

Deaths.

There were 111 males, 59 females, total 170, deaths during the twelve months ending on 30th June, 1936, as compared with 108 males, 48 females, total 156 deaths for the twelve months preceding. The death rate on the average number resident for the past twelve months, was 10·24 per cent., as compared with 9·53 per cent. for the twelve months ending on 30th June, 1935.

The death rates for the past twenty-seven and a-half years, respectively, were as follows:—

Year.	Males.	Females.	Total.
1909	8·88	5·80	7·69
1910	9·76	7·74	8·98
1911	8·90	7·53	8·38
1912	11·46	7·46	10·05
1913	8·54	9·34	8·82
1914	8·33	12·63	9·83
1915	8·30	12·78	9·56
1916	7·96	6·01	7·29
1917	6·10	6·59	6·26
1918	8·10	8·11	8·11
1919	9·37	7·9	8·96
1920	8·91	9·69	9·19
1921	10·46	8·48	9·90
1922	9·99	8·95	9·62
1923	8·05	9·65	8·62
1924	10·42	10·31	10·39
1925	8·89	9·67	9·13
1926–27 (18 months)	15·78	13·63	15·11
1927–28 (12 months)	8·52	13·41	10·12
1928–29 (12 months)	8·51	8·51	8·51
1929–30 (12 months)	11·05	8·59	10·22
1930–31 (12 months)	7·53	10·07	8·40
1931–32 (12 months)	10·24	8·65	9·71
1932–33 (12 months)	10·44	6·69	9·11
1933–34 (12 months)	10·90	11·53	11·14
1934–35 (12 months)	10·70	7·65	9·53
1935–36 (12 months)	10·73	9·42	10·24

Causes of Death.

Of the 111 males, 59 females, total 170 deaths that occurred during the past twelve months 33 males, 15 females, total 48 deaths occurred from various diseases of the nervous system, forming males 29·72 per cent., females 25·42 per cent., total 28·23 per cent. of the total deaths. Of these there were 10 males, 1 female, total 11 deaths from general paralysis of the insane, making percentages of 9·00 males, 1·69 females, total 6·52 per cent. There were 18 males or 16.21 per cent., 3 females or 5·08 per cent., total 21, or 12·35 per cent. of deaths from diseases of the circulatory system. Diseases of the respiratory system accounted for 4 males, or 3·60 per cent., 5 females, or 8·47 per cent., total 9, or 5·29 per cent. of the deaths. Senile decay occurred in 32 male deaths, or 29·90 per cent., 22 females, or 35·59 per cent., total 55, or 32·35 per cent. of the deaths. Deaths occurred from diseases of the alimentary system in 11 males, or 9·90 per cent., 4 females, or 6·77 per cent., total 15, or 8·82 per cent. There were 3 male deaths, or 2·70 per cent., 4 female, or 6·77 per cent., total 7 deaths, or 4·11 per cent., due to diseases of the genito-urinary system. Deaths from other causes numbered 9 males, or 8·10 per cent., 6 females, or 10·16 per cent., total 15 deaths, making 8·82 per cent. Post mortems were held on 7 males, 5 females, total 12 deaths. One death, a male, was due to suicide from taking hydrochloric acid, apparently used in the building of three new wards, and thrown on one side in a rubbish heap by some workman. A post mortem was ordered and carried out, confirming the cause of death.

Magisterial Inquiries.

One coroner's inquiry was held during the past twelve months, concerning the sudden death of a male patient. The post mortem was performed by Dr. Derrick, Director of the Laboratory section of Health and Home Affairs. The cause of death was due to disease of the coronary arteries.

Deportees.

One male only was deported to his respective country during the past twelve months.

Births.

No birth took place in the hospital during the twelve months ending on 30th June, 1936.

Escapes.

There were only two escapes, both male patients, during the past twelve months ending on 30th June, 1936, one of whom was recaptured and brought back the same day of escape. The other was discharged off the books.

Wassermann Tests.

Wassermann tests have been carried out, as in previous years, by the Health Department Laboratory on blood specimens from all the patients admitted during the past twelve months ending on 30th June, 1936. The results obtained were as follows:—Decidedly positive reactions, 27 males, 15 females, total 42; positive, 3 males, 7 females, total 10; slightly positive, 10 males, 14 females, total 24; very slightly positive, 8 males, 14 females, total 22. The total number of patients showing some postive Wassermann reaction was 48 males, 50 females, total 98. The percentage of positive Wassermann's to the admissions was as follows:—

—	Males.	Females.	Total.
Decidedly positive	9·71	7·35	8·71
Positive	1·07	3·43	2·07
Slightly positive	3·59	6·86	4·97
Very slightly positive ..	2·87	6·86	4·56
On all degrees of positive reaction	17·26	24·50	20·33

General Paralysis of the Insane.

—	M.	F.	Total.
Remaining on the 1st July, 1935 ..	22	1	23
Admitted during 12 months ending 30th June, 1936	11	1	12
Total under treatment during 1935-36	33	2	35
Discharged or transferred during 1935-36 (M. 2, F. 1, Total 3)			
Died during 1935-36 .. (M. 10, F. 1, Total 11)			
Total discharged, transferred, and died during 12 months ending 30th June, 1936	12	2	14
Remaining on 30th June, 1936	21	..	21
Percentage of general paralytics under treatment to total number of patients under treatment during 1935–36	2·55	0·23	1·62
Percentage of general paralytics remaining to number of patients remaining on books on 30th June, 1936	2·08	..	1·28
Percentage of general paralytics admitted to the admissions during 1935-36	3·95	0·48	2·48

Epileptic Patients.

—	M.	F.	Total.
Remaining on 1st July, 1935	82	50	132
Admitted in the year	16	12	28
Admitted by transfer	..	3	3
Total under treatment during 12 months ended 30th June, 1936	98	65	163
Discharged during 1935–36 (M. 4, F. 1, Total 5)			
Transferred during 1935–36 (M. 1, F. 4, Total 5)			
Died during 1935–36 .. (M. 6, F. 2, Total 8)			
Total discharged, transferred, and died during 1935–36	11	7	18
Remaining on 30th June, 1936	87	58	145
Percentage of epileptics under treatment to total number of patients under treatment during 1935-36	7·59	7·56	7·58
Percentage of epileptics remaining on books to number of patients remaining on books on 30th June, 1936	8·65	9·16	8·86
Percentage of epileptics admitted to the admissions	5·75	5·88	5·80

G. P. I. Malarial Treatment.

From the 1st October, 1929, to the 30th June, 1936, 82 males, 6 females, total 88 patients suffering with general paralysis of the insane were given malarial treatment. Of this number 18 males, 1 female, total 19 patients were discharged recovered.

During the twelve months ending on 30th June, 1936, 13 males, 2 females, total 15, were treated with malaria, and 2 males, 1 female, total 3 patients, were discharged recovered.

Epileptics.

During the twelve months from 1st July, 1935, to 30th June, 1936, 3,887 epileptic fits were recorded occurring in the 138 epileptic patients in the Mental Hospital. There were 87 males and 51 females, total 138 epileptic patients; these epileptic fits occurred, as hereunder:—

During the warmer six months of the year, viz., from October, 1935, to March, 1936, 1,412 fits occurred in the male patients, and 517 in the female patients, a total of 1,929 epileptic fits, while during the six cooler months of the year, July, August, September, 1935, and April, May, June, of 1936, the male patients suffered from 1,495 fits, whilst the female patients had 463 fits.

An analysis of the epileptic fits occurring during the day-time and at night gives the following figures:—

SIX COOLER MONTHS.

July, August, September, 1935, and April, May, June, 1936.

Males.

Day	826
Night	382
Total	1,208

SIX HOTTER MONTHS.

October, November, December, 1935, and January, February, March, 1936.

Males.

Day	818
Night	351
Total	1,169

SIX COOLER MONTHS.

July, August, September, 1935, and April, May, June, 1936.

Females.

Day	389
Night	101
Total	490

SIX HOTTER MONTHS.

October, November, December, 1935, and January, February, March, 1936.

Females.

Day	461
Night	117
Total	578

The average number of epileptic fits for each male patient per annum was 24·25. The female epileptic patients averaged 16.43 fits each, while for the total male and female epileptic patients the average number of fits for each patient was 21.13 during the past year ending 30th June, 1936.

The daily average number of epileptic fits that occurred during the past year was 6.51 on the male side, 2.92 on the female side, the daily average for both sexes being 9.43 fits.

Returned Soldiers.

(Red Cross Society.)

The above society for many years have given liberally and generously to the returned soldier patients and these patients have fully appreciated these presents. Parcels arrived regularly at fortnightly intervals during the year containing 103 to 116 packets of tobacco and cigarette papers. A special delivery of puddings, cake, and fruit was made by the society at Christmas.

The following table shows the number of returned soldiers who have been certified as insane and admitted to Goodna—A, during the past twelve months; B, from the commencement of the war up to 30th June, 1936:—

Table A.

—	Admitted.	Readmitted.	Previously Admitted prior to the War.	Total Admitted.	Discharged.		Transferred.	Died.	Remaining.
					Recovered.	Relieved or not Improved.			
From active service	26	12	..	38	17	..	..	6	15
From abroad, but who have not seen active service	..	..	..	..	..	..	..	..	..
From camp ..	..	..	..	..	..	..	..	..	..
Total for 1935-6	26	12	..	38	17	..	..	6	15

Table B.

—	Admitted.	Readmitted.	Previously Admitted prior to the War.	Total Admitted.	Discharged.		Transferred.	Died.	Remaining.
					Recovered.	Relieved or not Improved.			
From active service	491	60	10	561	309	3	56	94	99
From abroad, but who have not seen active service	4	..	1	5	2	..	..	..	3
From camp ..	14	..	2	16	10	..	..	1	5
Total	509	60	13	582	321	3	56	95	107

Patients Remaining in the Hospital on 30th June, 1936.

There were 1,005 males, 633 females, total 1,638 patients, on the books of this hospital on 30th June, 1936, of whom 11 males, 38 females, total 49, were on leave of absence, while 994 males, 595 females, total 1,589, were in residence, as compared with 1,003 males, 621 females, total 1,624, in residence on 30th June, 1935, showing a decrease of 9 males, 26 females, a total decrease of 35 patients at the termination of the twelve months ending 30th June, 1936. The transfer of 1 male, 48 females, total 49 patients, to Toowoomba, in addition to a larger number than usual of male and female patients to Ipswich owing to the overfull state of the female wards here which the additional dormitories and dining-room to female wards Nos. 3 and 5 will relieve if the building of these are not delayed too long, is the reason why the number of patients remaining at Goodna at the end of the twelve months on 30th June, 1936, was not considerably higher.

Accommodation.

The following table gives the cubic space for each dormitory in all the wards of this hospital, together with the space per bed in cubic feet for 1935-36:—

No. of Ward.	No. of Dormitory.	Total Capacity in cubic feet in each Dormitory.	Cubic feet per Patient in each Dormitory in 1934-35.	Cubic feet per Patient in each Dormitory in 1935-36.
Male Division.				
1	1	6,648	554	511
	2	21,720	572	1,034
	3*	8,658	619	509
2† ..	1	17,376	756	914
3	1	7,140	510	510
	2	15,786	493	493
	3*	8,658	456	509
4	1	17,616	927	880
	2	15,606	1,419	1,419
	3	17,616	979	979
	4	3,467	138	138
	5*	13,950	697	734
5	1	5,040	420	504
	2	20,640	625	737
6	1	10,720	..	714
	2	10,720	..	714
7	1	10,720	..	714
	2	10,720	..	714
8‡ ..	1	17,868	..	992
	2	17,868	..	..
9	1	36,828	752	920
	2	11,520	823	823
10	1	36,828	819	898
	2	11,520	823	960
11	1	19,440	926	1,023
	2	19,440	778	883
	3	27,648	747	768
	4	19,440	748	925
	5*	6,624	828	828
	6*	6,624	828	946
12	1	36,828	752	944
	2	11,520	823	960
13	1	36,828	800	920
	2	11,520	720	886
14§ ..	..	..	..	..
15‖ ..	1	15,810	878	832
Farm Ward	1	13,789	862	811
Hospital ..	1	10,416	1,041	1,157
	2	3,565	1,188	1,188
	3	4,420	632	736

* Veranda (open-air) Dormitories.
† Admission Ward.
‡ Admission Ward for quiet recoverable patients.
§ Refactory Ward, with all single rooms and no dormitory.
‖ Epileptic Ward.

No. of Ward.	No. of Dormitory.	Total Capacity in cubic feet in each Dormitory.	Cubic feet per Patient in each Dormitory in 1934–35.	Cubic feet per Patient in each Dormitory in 1935–36.
	Female Division.			
1	1	23,979	406	380
2	1	20,282	751	751
	2	4,320	432	392
	3	4,320	360	360
	4*	1,848	308	308
3	1	18,432	384	392
	2	7,728	454	429
	3*	9,744	573	487
	4*	1,440	240	240
4	1	11,724	355	509
	2	11,724	355	468
5	1	19,311	304	341
	2	3,224	293	230
	3	3,224	179	179
6	1	24,419	460	542
	2	7,863	715	655
	3*	9,229	543	576
7	1	8,273	345	393
	2	4,400	..	366
8	1*	8,064	288	288
Hospital ..	1	10,416	1,041	1,041
	2	3,565	1,188	1,188
	3*	4,420	632	736

* Veranda (open-air) Dormitories.
† Admission Ward.
‡ Admission Ward for quiet recoverable patients.
§ Refractory Ward, with all single room and no dormitory.
|| Epileptic Ward.

OCCUPATIONAL THERAPY.

Fancy Needle Room.

On the female side the fancy needle room continues to provide useful and pleasurable occupation, and many patients who dislike ordinary plain needlework take a delight in doing ornamental and, in some cases, really beautiful embroidery, the results of which help materially to brighten the wards in which they and other patients reside. The flower garden in which this fancy needle room is situated has been such a success that it is being extended right along the river side of the general female ward grounds, so that all the patients in this portion of the Institution can see, and enjoy, the beauty of this garden, but the destructive patients are prevented from destroying and marring the work of those patients who tend to this flower garden. Wireless sets are installed in both the fancy and ordinary needle rooms, which entertain the patients while they sit and work.

I am waiting the commencement and completion of the men's new workroom to be built out of material of the old Male 6 and 7 wards; this will supply a great need by giving an opportunity of teaching those patients who are capable of learning many handy arts and crafts which will bring them pleasure and contentment and will materially aid in forwarding the recovery of some of them.

Out-of-door occupation is supplied in as many and various ways as possible to suit the tastes and capabilities of as many as possible; the farm, the horses, cattle, and pigs, bush work, recreation grounds, and golf course, besides assistance in several indoor skilled occupations, are all available, and all these, undoubtedly, are of great assistance in keeping up the good recovery-rate of this Hospital.

Buildings.

I am more than pleased to be able to report that the two male wooden wards, Nos. 6 and 7, are things of the past; they were a source of extreme danger from fire and most difficult to keep clean. They have been replaced by three brick buildings, photographs of which are included in this Report.

The plans of two of the three new wards, Nos. 6 and 7, were shown in the 1933-34 Annual Report, while that of the new M. 8, the third ward, was included in the 1934-35 Annual Report. Two of these were commenced in August, 1934, and the third soon after April, 1935. All three wards were officially opened on 20th February of this year by His Excellency Col. The Rt. Hon. Sir Leslie Orme Wilson, G.C.S.I., G.C.I.E., C.M.G., D.S.O., Governor of Queensland, who has had previous experience of mental hospitals in his official capacity while in India, so that his comments of approval on these new wards were particularly appreciative.

The Hon. Mr. F. A. Cooper, M.L.A., Minister for Public Instruction, supported by Sir Raphael Cilento, Director-General of Health for Queensland, were officially present, and made the introductory speeches. Among the many people gathered at the opening ceremony, besides other members of Parliament, Mr. Colledge, Under Secretary of Works, was very appropriately present to see the result of his Department's work.

Male 8 ward, referred to above, is being used as a second admission ward for quiet recoverable new patients; the fencing surrounding this ward's garden is only about five feet high with an unlocked gate so that these patients can get access to and walk about the recreation and sports grounds, which these new wards overlook. As the site of the cricket pavilion was directly in the line of vision, and between the new M. 8 ward and the cricket ground, it was removed to the opposite side of this recreation ground to a position where it will not obstruct the view of the cricket matches; on the vacated site a platform for a bandstand has been made where visiting bands come and entertain the patients with open-air band music.

Extension on Female Side.

The female wards are overfull, and plans have been completed by the Department of Public Works for some months now for the junction of female 3 and 5 blocks which will supply a new large dining-room and a large additional dormitory. More recently a sleeping-out verandah dormitory has been asked for as an addition to female 1 and 2 block. It is hoped these works will be commenced without further delay, as overcrowding is bad for the patients and is uneconomical, as it tends to interfere with the chances of their recovery. Unfortunately the site of the female side of this hospital does not lend itself to further development and the construction of more wards. The time has arrived when one must seriously consider the necessity for a mental hospital for the North of Queensland by selecting a suitable site of about 500 acres of land, with a sufficient water supply, and proceeding with the plans without delay. Mental hospitals cannot be planned and built in a day, and this urgent matter should not be left until the three existing mental hospitals are all overcrowded.

View from the Recreation Grounds of new Male Wards Nos. 6, 7, and 8, Mental Hospital, Goodna.

Ornamental Shelter Shed in the Park at Mental Hospital, Goodna, where patients picnic with visitors.

Painting Repairs.

In each of the three mental hospitals most of the wards sadly require repainting internally. My experience of the public's opinion generally of mental hospitals is that they are dirty places. A great deal of this could be dispelled if they were repainted at regular and more frequent intervals; to obtain this end many years ago painters were put on the hospital artisan staff, but were soon removed and this work was handed over to the Public Works Department, but the wards have not been kept in a state of repair as regards repainting as they should have been. The most economical and efficient way is, undoubtedly, to have these painters replaced on the hospital artisan staffs and the work of repainting would be guaranteed.

Amusements.

Regular dances during the winter months, with cinematograph shows earlier in the year, and occasional concerts, have formed the chief form of indoor recreation for the patients. A small orchestra from the staff supplied the music for the dances.

During the past year a talkie apparatus has been hired, the owners of which come and operate the machine and give fortnightly entertainments in the winter months and weekly in the summer. It will, however, be a more economical proposition to own our own installation which I trust will soon be done.

Cricket and football, as in past years, have been played on the institution recreation ground; also a very successful athletic sports day—as in past years—was held on Boxing Day, for which many Brisbane firms kindly supplied prizes.

Each ward has now its own wireless set; each set being entirely independent of any other ward so that each ward can choose to tune in to any station it desires. This scheme has given much satisfaction and greater pleasure to the patients and has been a great success since its installation.

Patients' Library.

This library is in charge of a patient, who acts as the librarian and issues books twice a week to patients. The library contains 2,566 books, besides magazines and periodicals. During the past twelve months 5,018 issues of books were made to patients. Most of the books contained in the library have been donated, and such gifts are very much appreciated by the patients.

Patients' Visitors.

Visits to male patients during the year ended on 30th June, 1936, numbered 7,134, and the number of persons making these visits was 9,713. Visits to female patients numbered 6,055, by 8,257 visitors, giving a total of 13,189 visits by 17,970 visitors. The average daily numbers of visitors and visits to patients were male 26·61 and 19·51 respectively; female 22·61 and 16·58; total 49·23 and 36·13, respectively. The above figures give the number of visitors to patients. As many visitors come from distant parts of Queensland, every day from 10 a.m. to 4 p.m. is visiting day, and in special cases of serious illness visits are allowed at any time, day or night. On the female side there is a visiting-room attached to the female admission ward, but most of the patients see their friends and relatives in the front ward garden attached to F. 6 ward.

On the male side most of the patients are visited in the front garden of M. 1 ward.

In such cases where patients cannot be trusted outside their own ward, or are unable to walk, they are allowed to be visited in their own wards.

Sick patients in the hospital block are visited in the dormitories, and seen in bed.

Quite a number of patients of both sexes when they can be trusted are allowed out into the park, where seats are supplied for their comfort, so that they can join their friends in picnics, which are very much appreciated by both patients and visitors. At the present time an ornamental shelter shed is being erected in the park which will give protection to patients and visitors caught while in the park by a sudden shower. A photograph of this park and the shelter shed is included in this report.

The number of visits are given above, which show to what a great extent these enter into the life and enjoyment of the patients.

Religious Services.

Church of England, Presbyterian, and Methodist services have been held regularly in the recreation hall for the patients who have wished to avail themselves of the opportunity, provided their mental states and resultant general good behaviour permitted them to attend. The Roman Catholic patients, where possible, attend their church in the Goodna township.

The clergy of the various religions pay periodic as well as special visits to the patients in the Institution whenever required.

Dental Treatment of Patients.

During the past year Mr. J. T. Finimore, the Visiting Dentist, continued to carry out the dental treatment of patients here up to 3rd August, 1935, when he resigned to take up a dental appointment at the Toowoomba General Hospital. During the past two months he carried out prophylaxis, fillings, extractions, and examinations. There were 46 males, 47 females, total 93 patients, for whom extractions were made, and in 9 males, 7 females, total 16 patients, prophylaxis treatment was carried out, while fillings were effected for 1 male, 2 females, total 3 patients, besides examinations in 33 males, 2 females, total 35. Mr. W. G. Illingworth was appointed as Visiting Dentist to succeed Mr. Finimore on 17th December, 1935; 158 males, 151 females, total 309 patients, have been attended to, 366 teeth have been extracted under local anæsthetic, and 3 patients have been administered general anæsthesia for extractions, 12 dentures have been altered and made more tolerable to the patients; 43 patients had teeth scaled and cleaned, while 32 dressings were placed in various teeth, 6 amalgam fillings and 1 gold inlay were also inserted.

Chiropodists.

During the past year Mr. Woolsey has visited this Hospital on twelve occasions and, with the help of his assistant, Mr. Ingram, during the earlier months, 316 patients were treated. Mr. Woolsey informs me that he has now the aid of Miss Bellamy, who is qualified as a chiropodist, as an assistant in the place of Mr. Ingram who has in the past always helped him at Sandy Gallop. Miss Bellamy has treated 19 nurses,

Patients for treatment included cases suffering from corns, callouses, ingrowing and club nails, and one case of verucæ.

Mr. Shay confined his visits to the female wards in this hospital during the past year and treated 238 female patients.

Official Visitors.

Dr. F. Glynn Connelly and Mr. R. Curtis, who are also the Official Visitors to the Sandy Gallop Mental Hospital, paid their monthly visits regularly to both hospitals during the past year.

Staff Changes.

I regret to have to record the death of Mr. Thomas Isaac Parker, Chief Attendant of this Hospital, on the 20th September, 1935. Although only succeeding Mr. J. H. Richardson on the 1st December, 1932, he was able to render very useful services during the short period he held the above office. The vacancy has been filled by the promotion and transfer of Mr. C. E. Daye from the position of Chief Attendant, Sandy Gallop Mental Hospital, Ipswich, who is filling his new office with marked ability.

Farm and Garden Produce.

The following table shows the quantities of vegetables and farm produce grown at the Institution for each of the past fourteen years:—

Year ending—	Vegetables.	Farm Produce.					
		Chaff.	Maize.	Ensilage.	Green Feed.	Potatoes.	Pumpkins and Turnips.
	Tons cwt. qr. lb.	Tons cwt. qr. lb.	Tons cwt. qr. lb.	Tons.	Tons.	Tons cwt. qr. lb.	Tons cwt. qr. lb.
30th June, 1923 ..	124 8 1 17	90 2 3 16	37 14 0 9	140	201½	13 13 1 3	11 14 1 2
30th June, 1924 ..	140 6 0 13	68 3 0 2	14 13 0 12	184	51½	3 9 1 27	10 17 2 0
30th June, 1925 ..	151 10 3 27	51 9 2 3	20 18 0 6	48	28	12 17 2 8	6 6 0 0
30th June, 1926 ..	136 18 0 19	117 0 2 25	21 8 3 15	125	230	9 14 3 18	..
30th June, 1927 ..	146 2 3 4	147 5 2 1	12 13 1 18	106	109	10 14 3 4	3 8 0 0
30th June, 1928 ..	144 8 0 18	71 15 1 2	11 19 3 9	79	159	20 1 3 19	..
30th June, 1929 ..	142 2 2 12	81 11 0 4	31 12 3 24	70	206½	..	..
30th June, 1930 ..	151 16 3 17	133 11 3 6	29 5 2 21	..	140	0 11 3 10	4 8 1 0
30th June, 1931 ..	123 6 0 13	100 12 2 5	23 4 3 0	..	395	..	11 18 1 28
30th June, 1932 ..	155 17 0 11	123 3 3 13	21 19 3 7	57	49	..	18 4 0 10
30th June, 1933 ..	152 6 0 14	106 4 3 11	21 11 3 2	9	364	10 15 3 0	23 14 3 10
30th June, 1934 ..	121 18 0 10	78 6 0 5	27 11 0 4	63	610½	22 1 1 4	14 13 0 22
30th June, 1935 ..	128 4 2 21	56 2 2 21	58 11 2 0	..	867	27 2 0 4	25 3 3 2
30th June, 1936 ..	100 10 0 18	58 8 3 12	32 12 0 20	6	604	23 18 0 15	18 0 2 16

Expenditure Table.

(Average number of Patients daily resident during twelve months, 1,660.)

	£	s.	d.
Total expenditure	98,873	12	7
Maintenance collected by Curator	17,621	5	4
Sales	606	9	5
Net expenditure	80,645	17	10
Gross cost per patient for twelve months	59	11	3
Net cost per patient for twelve months	48	11	7
Gross cost per patient per week	1	2	10
Net cost per patient per week	0	18	8

Table I.—Goodna.

Admissions, Readmissions, Discharges, and Deaths during the Year ending 30th June, 1936.

	Males.	Females.	Total.	Males.	Females.	Total.
On the books of the Hospital on 1st July, 1935				1,012	652	1,664
Admitted for the first time during the year	225	161	386			
Readmitted during the year	53	43	96			
Transferred from Toowoomba during the year	..	3	3			
Transferred from Ipswich during the year	..	..	..	278	207	485
Total under care during the year				1,290	859	2,149
Discharged, died, transferred—						
Discharged recovered	141	104	245			
relieved	2	6	8			
not improved	2	1	3			
Transferred to Toowoomba	1	48	49			
Transferred to Ipswich	28	8	36			
Died	111	59	170			
Total discharged, died, &c., during the year				285	226	511
Remaining on the books of the Hospital on 30th June, 1936				1,005	633	1,638
Average number daily resident during the year				1,034	626	1,660
On leave of absence on 30th June, 1936				11	10	21

Table II.—Goodna.

Admissions, Discharges, and Deaths, with the Proportions of Recoveries and Deaths per Cent., during the Year ending 30th June, 1936.

Admitted.			Readmitted			Discharged.									Died.			Remaining on 30th June, 1936.			Average Number Daily Resident.			Percentage of Recoveries on Admissions.			Percentage of Patients Relieved.			Percentage of Deaths on Average Number Resident.		
						Recovered.			Relieved.			Not Improved.																				
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
225	161	386	53	43	96	141	104	245	2	6	8	2	1	3	111	59	170	1,005	633	1,638	1,034	626	1,660	50·71	50·98	50·83	0·71	2·94	1·65	10·73	9·42	10·24

Table III.—Goodna.

CAUSES OF INSANITY IN THE PATIENTS ADMITTED DURING THE TWELVE MONTHS ENDING 30TH JUNE, 1936.

Causes of Insanity.	PREDISPOSING.			EXCITING.			TOTAL.		
	Males.	Females	Total.	Males.	Females	Total.	Males.	Females	Total.
Moral—									
Domestic trouble and bereavement	..	..	..	3	5	8	3	5	8
Business worries	..	..	..	7	1	8	7	1	8
Mental anxiety and overwork	..	..	..	5	2	7	5	2	7
Fright and shock	..	..	..	..	..	..	..	..	..
Isolation and loneliness	..	..	..	2	..	2	2	..	2
War	..	..	..	4	..	4	4	..	4
Love affairs	..	..	..	1	..	1	1	..	1
Religious excitement	..	..	..	1	..	1	1	..	1
Physical—									
Alcohol	..	..	..	10	4	14	10	4	14
Drugs	..	..	..	..	..	..	..	..	..
Accident or injury	..	..	..	4	2	6	4	2	6
Puerperal	..	..	..	..	3	3	..	3	3
Influenza	..	..	..	3	1	4	3	1	4
Other fevers	..	..	..	1	2	3	1	2	3
Diseases of brain and skull	..	..	..	3	1	4	3	1	4
General paralysis of the insane	..	..	..	11	1	12	11	1	12
Syphilis	..	..	..	30	9	39	30	9	39
Other bodily diseases	..	..	..	27	15	42	27	15	42
Heredity	43	48	91	..	..	..	43	48	91
Previous attacks	62	62	124	..	..	..	62	62	124
Climacteric	..	4	4	..	..	..	..	4	4
Senility	57	21	78	..	..	..	57	21	78
Epilepsy (acquired)	..	..	..	9	7	16	9	7	16
Congenital without epilepsy	15	18	33	..	..	..	15	18	33
Congenital with epilepsy	7	5	12	..	..	..	7	5	12
Not ascertained	..	..	..	..	..	..	35	27	62

Table IV.—Goodna.

CAUSES OF DEATHS DURING THE TWELVE MONTHS ENDING 30TH JUNE, 1936.

Causes.	Males.	Females.	Total.
General Diseases—			
Carcinoma	1	1	2
Enteric Fever	2	1	3
Influenza	2	1	3
Diseases of the Nervous System—			
Exhaustion of mania	2	..	2
Exhaustion of melancholia	4	2	6
Exhaustion psychosis	..	2	2
Cerebral hæmorrhage	3	4	7
Chronic cortical atrophy	4	..	4
Epilepsy	5	..	5
Status epilepticus	..	..	..
General paralysis of the insane	10	1	11
Meningitis	..	4	4
Imbecility and Idiocy	1	1	2
Dementia præcox	4	1	5
Tabo paresis	..	..	..
Hydro Cephalus	..	..	..
Diseases of the Circulatory System—			
Fatty degeneration of heart	5	..	5
Valvular disease of heart	..	1	1
Coronary Thrombosis	2	..	2
Myocarditis	6	..	6
Endocarditis	1	..	1
Arterio-sclerosis	2	1	3
Phlebitis	..	1	1
Anæmia	1	..	1
Auricular fibrillation	1	..	1
Diseases of the Respiratory System—			
Lobar pneumonia	1	1	2
Broncho-pneumonia	1	2	3
Pulmonary tuberculosis	1	1	2
Pulmonary bronchitis	1	..	1
Pulmonary gangrene	..	1	1
Diseases of the Digestive System—			
Colitis	6	3	9
Gastro enteritis	5	..	5
Strangulated hernia	..	1	1
Diseases of the Genito-Urinary System—			
Chronic nephritis	3	2	5
Pyelo nephritis	..	1	1
Pyelitis	..	1	1
Osteo myelitis	1	..	1
Mammary abscess	..	1	1
Senile decay	33	22	55
Septicæmia	..	2	2
Suicide	1	..	1
Injury	2	..	2
Totals	111	59	170

Table V.—Goodna.

LENGTH OF RESIDENCE IN THE HOSPITAL OF THE PATIENTS WHO WERE DISCHARGED OR WHO DIED DURING THE YEAR AND OF THOSE WHO REMAINED ON THE BOOKS OF THE HOSPITAL ON 30TH JUNE, 1936.

Length of Residence.	Discharges.						Deaths.			Remaining.		
	Recovered.			Relieved and not improved.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month	1	2	3	..	1	1	18	12	30	23	12	35
1 month and under 3 months	22	14	36	1	1	2	12	7	19	20	16	36
3 months and under 6 months	38	24	62	1	..	1	9	9	18	34	42	76
6 months and under 9 months	18	16	34	..	..	..	4	6	10	29	26	55
9 months and under 12 months	26	20	46	1	1	2	6	6	12	34	26	6
1 year and under 2 years ..	18	12	30	1	2	3	14	7	21	115	78	193
2 years and under 3 years ..	4	8	12	..	1	1	7	2	9	66	60	126
3 years and under 5 years ..	7	3	10	..	..	..	9	3	12	109	85	194
5 years and under 7 years ..	1	..	1	..	1	1	7	..	7	84	57	141
7 years and under 10 years ..	5	1	6	..	..	..	3	..	3	92	70	162
10 years and under 12 years ..	..	2	2	..	..	..	2	1	3	50	27	77
12 years and under 15 years ..	1	..	1	..	..	..	4	1	5	76	45	121
15 years and under 20 years ..	..	1	1	..	..	..	4	2	6	91	37	128
20 years and over	..	1	1	..	..	..	12	3	15	182	52	234
Totals	141	104	245	4	7	11	111	59	170	1,005	633	1,638

Table VI.—Goodna.

AGES OF THE PATIENTS WHOSE ADMISSIONS, DISCHARGES, AND DEATHS OCCURRED DURING THE YEAR, AND OF THOSE WHO REMAINED ON THE BOOKS OF THE HOSPITAL ON 30TH JUNE, 1936.

Ages.	Admissions.			Discharges.						Deaths.			Remaining.		
				Recovered.			Relieved and not improved.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..
5 years and under 10 years ..	4	4	8	..	..	..	..	..	..	..	1	1	..	1	1
10 years and under 15 years ..	1	2	3	1	..	1	..	..	..	..	2	2	7	2	9
15 years and under 20 years ..	7	7	14	4	1	5	..	..	..	2	1	3	20	13	33
20 years and under 30 years ..	43	37	80	27	18	45	..	1	1	4	2	6	102	73	175
30 years and under 40 years ..	52	54	106	27	29	56	..	3	3	17	9	26	200	159	359
40 years and under 50 years ..	38	39	77	27	19	46	..	..	..	12	8	20	205	158	363
50 years and under 60 years ..	50	23	73	29	20	49	1	1	2	14	3	17	186	102	288
60 years and under 70 years ..	36	22	59	12	13	25	2	..	2	23	12	35	146	65	211
70 years and under 80 years ..	32	10	42	10	2	12	1	2	3	27	11	38	115	50	165
80 years and under 90 years ..	11	4	15	3	1	4	..	..	..	11	7	18	21	5	26
90 years and under 100 years ..	..	..	..	..	..	..	..	..	..	..	1	1	3	..	3
Unknown..	2	2	4	1	1	2	..	..	..	1	2	3	..	5	5
Totals	278	204	482	141	104	245	4	7	11	111	59	170	1,005	633	1,638

Table VII.—Goodna.

CONDITION AS TO MARRIAGE OF THE PATIENTS WHOSE ADMISSIONS, DISCHARGES, AND DEATHS OCCURRED DURING THE YEAR, AND OF THOSE WHO REMAINED ON THE BOOKS OF THE HOSPITAL ON 30TH JUNE, 1936.

Condition as regards Marriage.	Admissions.			Discharges.						Deaths.			Remaining.		
				Recovered.			Relieved and not improved.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Single	150	85	235	77	33	110	1	4	5	55	19	74	733	330	1,063
Married	98	94	192	55	55	110	3	2	5	36	23	59	209	225	434
Widowed	25	25	50	9	16	25	..	1	1	17	17	34	41	70	111
Divorced	1	..	1	..	..	..	..	..	..	..	..	..	3	1	4
Unknown	4	..	4	..	..	..	..	..	..	3	..	3	19	7	26
Totals	278	204	482	141	104	245	4	7	11	111	59	170	1,005	633	1,638

Table VIII.—Goodna.

Religious Persuasions of the Patients whose Admissions, Discharges, and Deaths occurred during the Year, and of those who Remained on the Books of the Hospital on 30th June, 1936.

Religious Persuasions	Admissions.			Discharges. Recovered.			Discharges. Relieved and not improved.			Deaths.			Remaining.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Protestants—															
Church of England ..	103	77	180	43	37	80	..	3	3	50	21	71	391	250	641
Presbyterian ..	26	21	47	20	14	34	..	1	1	12	4	16	87	42	129
Methodist	16	24	40	7	11	18	1	1	2	3	9	12	90	69	159
Baptist	1	4	5	..	1	1	..	..	..	..	2	2	15	19	34
Lutheran	5	6	11	5	2	7	..	..	..	3	2	5	22	20	42
Church of Christ ..	3	1	4	1	..	1	..	..	..	..	1	1	1	1	2
Congregationalist ..	1	3	4	..	1	1	..	1	1	2	1	3	5	4	9
Plymouth Brethern	..	1	1	..	..	..	..	..	..	..	..	..	4	1	5
Theosophist	..	..	..	..	..	..	..	..	..	..	..	..	10	1	11
Christadelphian ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Apostolic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salvation Army ..	2	1	3	1	1	2	..	..	..	..	1	1	11	5	16
Pentecostal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
International Bible Student	..	1	1	..	1	1	..	..	..	..	..	..	..	..	..
Roman Catholic	92	62	154	50	33	83	3	1	4	35	17	52	324	200	524
Hebrew	1	..	1	1	..	1	..	..	..	..	..	..	..	..	..
Greek	5	..	5	4	..	4	..	..	..	1	..	1	2	..	2
Buddhist	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mahommedan	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Freethinker	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Seventh Day Adventist ..	3	..	3	3	..	3	..	..	..	..	..	..	1	1	2
Quaker	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..
Pagan	1	..	1	1	..	1	..	..	..	..	..	..	..	..	..
Nil	5	..	5	1	1	2	..	..	..	3	..	3	21	5	26
Unknown	14	3	17	4	2	6	..	..	..	2	..	2	17	15	32
Totals	278	204	482	141	104	245	4	7	11	111	59	170	1,005	633	1,638

Table IX.—Goodna.

Birthplaces of Patients in the Hospital during the Year ending 30th June, 1936.

Birthplace.	Admissions.			Remaining on 30th June, 1936.		
	Males.	Females.	Total.	Males.	Females.	Total.
Australasia—						
New South Wales	20	12	32	54	33	87
Victoria	10	6	16	34	12	46
Queensland	143	137	280	570	418	988
Queensland (Aboriginal)	1	..	1	..	7	7
South Australia	1	..	1	4	..	4
Western Australia	..	..	..	2	..	2
Tasmania	1	..	1	2	1	3
New Zealand	3	..	3	6	3	9
Northern Territory	1	..	1	..	..	..
United Kingdom—						
England	40	20	60	116	74	190
Wales	..	..	..	4	..	4
Scotland	15	7	22	44	19	63
Ireland	12	8	20	77	32	109
Other British Possessions—						
India	1	1	2	5	2	7
Ceylon	..	..	..	..	..	..
Canada	..	..	..	2	..	2
South Africa	..	1	1	1	..	1
Cyprus	..	..	..	..	..	..
Malta	1	..	1	3	..	3
West Indies	..	..	..	..	..	..
European Foreign Countries—						
Austria	..	..	..	3	..	3
Germany	3	..	3	16	6	22
France	1	1	2	2	1	3
Denmark	..	..	..	5	2	7
Holland	1	1	2	1	..	1
Norway	..	..	..	4	1	5
Sweden	2	..	2	4	..	4
Russia	2	..	2	4	2	6
Switzerland	..	..	..	2	1	3
Spain	..	..	..	1		1
Portugal	..	..	..	1	..	1
Italy	2	2	4	6	2	8
Greece	4	..	4	3	..	3
Other European Countries	..	1	1	3	1	4
Other Foreign Countries—						
China	1	1	2	2	..	2
Japan	1	..	1	..	..	..
United States of America and Phillipine Islands ..	1	..	1	4	3	7
Palestine	..	..	..	..	1	1
Syria	..	..	..	..	..	..
Polynesia	..	..	..	1	..	1
At Sea	..	..	..	1	..	1
Unknown	11	6	17	18	12	30
Totals	278	204	482	1,005	633	1,638

Table X.—Goodna.

Forms of Mental Disorders in Patients admitted during the Twelve Months ending 30th June, 1936.

Form of Mental Disorder.	Males.	Females.	Total.
Manic Depresive Insanity—			
Acute delirious mania	..	..	..
Acute mania	4	1	5
Simple mania	9	13	22
Chronic mania	1	..	1
Recurrent mania	7	9	16
Acute melanchloia	2	4	6
Simple melancholia	17	10	27
Melancholia agitans	1	4	5
Hypochondriacal melancholia	..	..	..
Delusional melancholia	6	3	9
Resistive melancholia	..	4	4
Stuporose melancholia	6	2	8
Chronic melancholia	1	1	2
Recurrent melancholia	4	4	8
Alternating insanity	1	3	4
Recurrent insanity	2	10	12
Anergic stupor	..	..	..
Acute confusional and exhaustion psychosis	13	14	27
Alcholic Insanitics—			
Mania à potu	1	..	1
Alcoholic Insanity	5	3	8
Alcoholic paranoia	..	..	..
Alcoholic dementia	3	..	3
Paranoia	2	1	3
Paraphrenia	30	23	53
Schizophrenia	53	37	90
General paralysis of the insane	11	1	12
Cerebro spinal syphilis	1	..	1
Chronic cortical atrophy	8	4	12
Secondary dementia	2	2	4
Senile dementia	57	21	78
Epilepsy (acquired)	9	7	16
Congenital with epilepsy	7	5	12
Congenital without epilepsy	15	18	33
Endocrinal psychoses	..	..	..
Totals	278	204	482

Table XI.—Goodna.

Bodily Health and Condition of Patients admitted during the Twelve Months ending 30th June, 1936.

Bodily Condition.	Males.	Females.	Total.
In apparently good health and condition	81	68	149
In indifferent health and reduced condition	108	85	193
In bad health and exhausted condition	89	51	140
Totals	278	204	482

Table XII.—Goodna.

PREVIOUS OCCUPATIONS OF PATIENTS ADMITTED DURING THE TWELVE MONTHS ENDING 30TH JUNE, 1936.

Occupations.	Number.	Occupations.	Number.	Occupations.	Number.
Males.		*Males—continued.*		*Males—continued.*	
Auctioneer	1	Licensed Victualler	1	Traveller	5
Baker	1	Linotype Operator	1	Wharf Labourer	2
Blacksmith	2	Mail Contractor	1	Nil	21
Boilermaker	1	Mechanic	1	Unknown	7
Bullock Driver	1	Messenger	1		
Bush Worker	1	Mill Hand	1	Total	278
Butcher	3	Miner	5		
Canecutter	1	Organist	1		
Carpenter	8	Packer	1	*Females.*	
Carrier	1	Painter	2	Charwoman	1
Carter	3	Pastoralist	1	Companion	1
Cleaner	1	Pensioner	22	Cook	2
Clerk	7	Piano Tuner	1	Domestic	75
Commission Agent	2	Plumber	1	Dressmaker	1
Company Manager	1	Polisher	1	Florist	1
Cook	1	Postal Employee	2	Housemaid	1
Cooper	2	Printer	1	Housewife	74
Cotton Picker	1	Prospector	1	Machinist	1
Customs Officer	1	Railway Employee	2	Music Teacher	1
Drover	1	Relief Worker	2	Needlewoman	1
Farmer	27	Salesman	2	Nurse	1
Farm Labourer	10	Shearer	1	Pensioner	6
Fuel Merchant	1	Shed Hand	1	School Teacher	2
Gardener	3	Shop Assistant	2	Shop Assistant	1
Goods-shed Foreman	1	Small-goodsman	1	Storekeeper	1
Grocer	1	Soldier	1	Student	1
Hairdresser	1	Station Hand	4	Child	1
Insurance Agent	1	Stockman	1	Nil	27
Investor	1	Storekeeper	1	Unknown	5
Kangaroo Shooter	1	Surveyor's Linesman	1		
Labourer	89	Tailor	1	Total	204
Ledger Keeper	1	Timber Getter	1		

Table XIII.—Goodna.

DISTRICTS WHENCE PATIENTS WERE RECEIVED DURING THE TWELVE MONTHS ENDING 30TH JUNE, 1936.

Districts.	Males.	Females.	Total.
Northern and North-Western Districts	33	20	53
Central Districts	30	20	50
Southern and South-Western Districts	215	164	379
Totals	278	204	482

Table XIV.—Goodna.

ARTICLES MADE UP IN THE WORKROOM DURING THE TWELVE MONTHS ENDING 30TH JUNE, 1936.

Articles.	Number.	Articles.	Number.
Abdominal belts	2	Pyjama coats	147
Ambulance covers	1	Pyjama suits	34
Aprons	201	Pyjama trousers	105
Blinds	26	Pudding cloths	12
Bloomers	7	Quilts	111
Boys trousers	3	Screen covers	12
Chair top covers	4	Serviettes	20
Combinations	1,867	Sheets, calico	2,910
Communion cloths	1	Sheets, waterproof	230
Curtains	23	Shifts	208
Cushion covers	53	Shirts, flannel	2,177
Drawers	49	Shirts, harvard	30
Dresses	1,853	Shrouds	84
Dressing bags	17	Slip bodices	2
Fever gowns	1	Tablecloths	481
Jackets	191	Tablecovers	26
Milk jug covers	4	Teabags	48
Mosquito nets	125	Ticks	423
Nightgowns	475	Tablerunners	64
Overalls	10	Towels, dressing	21
Petticoats	231	Towels, huckaback	2,848
Piano covers	2	Towels, kitchen	142
Pillow cases	277	Tray cloths	6
Pillow shams	19	Valances	2
Pillow slips	1,652	Vests	49

GOODNA HOSPITAL FOR INSANE

BLOCK PLAN

REVISED MAY 1936.

SCALE OF FEET

HOSPITAL FOR THE INSANE, TOOWOOMBA.

—	Males.	Females.	Total.
Number of patients in residence at the Hospital on 1st July, 1935	565	550	1,115
Number on leave of absence on 1st July, 1935	13	19	32
Total on the books of the Hospital on 1st July, 1935	578	569	1,147
Admissions, including readmissions and transfers, during twelve months ending 30th June, 1936	53	82	135
Total on books and under treatment during twelve months ..	631	651	1,282
Discharged and transferred .. .. .. (Males 39, Females 26, Total 65)			
Died .. .. (Males 29, Females 17, Total 46)			
Total discharges, transfers, and deaths	68	43	111
Remaining on the books of the Hospital on 30th June, 1936	563	608	1,171
Number on leave of absence on 30th June, 1936	12	20	32
Number in residence at the Hospital on 30th June, 1936	551	588	1,139
Average number daily resident during the twelve months	558	580	1,138

Below is a table showing the number of admissions, readmissions, and transfers to this Hospital for each of the past twenty-seven and a-half years respectively :—

Year.	Admissions.			Readmissions.			Transfers.			Total.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1909	42	16	58	6	1	7	5	13	18	53	30	83
1910	42	22	64	10	4	14	1	..	1	53	26	79
1911	52	22	74	5	4	9	6	31	37	63	57	120
1912	46	19	65	8	1	9	3	2	5	57	22	79
1913	48	17	65	6	2	8	12	14	26	66	33	99
1914	42	25	67	9	5	14	..	..	..	51	30	81
1915	38	20	58	6	7	13	11	..	11	55	27	82
1916	39	19	58	11	10	21	..	1	1	50	30	80
1917	35	19	54	9	10	19		20	20	44	49	93
1918	37	22	59	6	2	8	..	100	100	43	124	167
1919	43	17	60	7	9	16	20	1	21	70	27	97
1920	50	29	79	10	5	15	..	1	1	60	35	95
1921	39	25	64	4	1	5	14	47	61	57	73	130
1922	32	27	59	7	3	10	..	2	2	39	32	71
1923	49	25	74	6	4	10	123	1	124	178	30	208
1924	43	31	74	5	4	9	10	60	70	58	95	153
1925	41	27	68	9	3	12	12	6	18	62	36	98
1926–27* ..	51	50	101	3	8	11	19	12	31	73	70	143
1927–28† ..	30	16	46	4	5	9	15	10	25	49	31	80
1928–29† ..	50	33	83	11	7	18	..	3	3	61	43	104
1929–30† ..	37	33	70	6	4	10	11	1	12	54	38	92
1930–31† ..	42	28	70	1	4	5	24	22	46	67	54	121
1931–32† ..	43	32	75	1	1	2	..	3	3	44	36	80
1932–33† ..	39	30	69	5	..	5	31	11	42	75	41	116
1933–34† ..	44	42	86	3	1	4	12	27	39	59	70	129
1934–35† ..	41	34	75	7	6	13	31	21	52	79	61	140
1935–36† ..	42	31	73	10	3	13	1	48	49	53	82	135
Totals for past 27½ years	1,137	711	1,848	175	114	289	361	457	818	1,673	1,282	2,955

* This period is for 18 months. † This period is for 12 months.

The following table gives the number in residence in this hospital at the end of each year for the past twenty-seven and a-half years respectively, together with the daily average and the total number under treatment for the same periods; also the increase or decrease in the total number under treatment for each year respectively :—

Year.	In Residence at the end of each Year.	Daily Average Resident during each Year.	On Books and under Treatment during each Year.		
			Total Number.	Increase.	Decrease.
1909	734	737	816	..	..
1910	723	746	819	3	..
1911	748	751	847	28	..
1912	738	755	841	..	6
1913	732	751	843	2	..
1914	729	754	835	..	8
1915	723	751	859	24	..
1916	722	749	826	..	32
1917	748	759	841	15	..
1918	836	772	936	95	..
1919	840	874	956	20	..
1920	845	870	965	9	..
1921	880	911	1,001	36	..
1922	870	882	990	..	11
1923	989	978	1,118	128	..
1924	1,057	1,034	1,179	61	..
1925	1,058	1,051	1,197	18	..
1926-27*	1,050	1,056	1,255	58	..
1927-28†	1,066	1,039	1,179	..	76
1928-29†	1,052	1,036	1,215	36	..
1929-30†	1,040	1,051	1,173	..	42
1930-31†	1,089	1,072	1,190	17	..
1931-32†	1,067	1,081	1,198	8	..
1932-33†	1,067	1,073	1,215	17	..
1933-34†	1,086	1,078	1,228	13	..
1934-35†	1,115	1,095	1,258	30	..
1935-36†	1,139	1,138	1,282	24	..

* This period is for 18 months. † These periods are for twelve months.

Causes of Insanity in the Admissions.

Of the 52 male, 34 female, total 86 admissions, including readmissions, the predisposing causes were as follows:—Heredity was ascertained in only 2 males, 1 female, total 3, giving a percentage on the admissions of 3·84 males, 2·94 females, total 3·48 per cent. As previously pointed out in these annual reports, these figures are so much below what is usually ascertained in other statistics that they cannot be regarded as accurate nor of any assistance in obtaining a true and reliable return of cases with hereditary predisposition. Previous attacks had occurred in 14 males, 7 females, total 21, or 24·41 per cent. of the admissions. Senility was a predisposing cause in 4 males, 2 females, total 6, or 6·97 per cent., while no case diagnosed due to congenital causes was admitted during the year. Of the exciting and contributory causes, the moral causes were present in 3 males, 5 females, total 8, or 9·30 per cent. Of the physical exciting causes, alcohol accounted for 3 males, 1 female, total 4, or males 5·76 per cent., 2·94 per cent. females, total 4·65 per cent. Epilepsy, acquired, was a cause in 8 males, 6 females, total 14, or 15·38 per cent. males, 17·64 per cent. females, total 16·27 per cent. There was no case of congenital epilepsy as a cause. General paralysis occurred in 2 males, total 2, or 3·84 per cent. of males or 2·32 per cent. of total admissions. Bodily ill-health, injuries, and other bodily diseases, apart from the cases mentioned above, were found to be causes in 4 males, 3 females, total 7, forming 8·13 per cent. There were 8 males, 3 females, total 11, or males 15·38 per cent., females 8·82 per cent., total 12·79 per cent. of the admissions in which no cause was ascertained.

Mental Diseases of Those Admitted.

Of the 52 males, 34 females, total 86 patients admitted, including readmissions, the various forms of manic depressive insanity were diagnosed in 13 males, 4 females, total 17, or males 25·00 per cent., females 11·76 per cent., total 19·76 per cent.; of these, there were 9 males, or 17·30 per cent., 1 female, or 2·94 per cent., total 10, or 11·62 per cent., suffering from mania, while those admitted suffering from melancholia numbered 4 males, 3 females, total 7, forming males 7·69 per cent., females 8·82 per cent., total 8·13 per cent. The cases of acute confusional and exhaustion psychoses admitted were 1 male, 1 female, total 2, or 1·92 per cent. males, 2·94 per cent. females, total 2·32 per cent.

Of the various forms of alcoholic insanity, there were admitted 2 males, 1 female, total 3, or 3·48 per cent. Schizophrenia was diagnosed in 14 males, or 26·92 per cent., 13 females, or 38·23 per cent., total 27, or 31·39 per cent. of the admissions. Two cases of general paralysis of the insane were admitted during the past year both males forming 3·84 per cent. Paraphrenia was diagnosed in 3 males, 2 females, total 5, or 5·81 per cent. Epilepsy was present in 8 males, 6 females, total 14, or 15·38 per cent. males, 17·64 per cent. females, total 16·27 per cent. There were 5 males, 3 females, total 8, or 9·30 per cent. admitted suffering from senile dementia. No congenital case was admitted during the year ending 30th June, 1936.

Bodily Condition of Patients on Admission.

There were 39 males, 22 females, total 61 patients admitted in good bodily health, forming males 75·00 per cent., females 64·70 per cent., total 70·93 per cent. of the 52 males, 34 females, total 86 patients admitted and readmitted during the past twelve months. Two males, 3 females, total 5, were in indifferent bodily health, or 3·84 per cent. males, 8·82 per cent. females, total 5·81 per cent. Finally there were 11 males or 21·15 per cent., 9 females or 26·47 per cent., total 20, or 23·25 per cent., who were admitted in bad bodily health.

Ages of Patients Admitted.

During the past twelve months ending on 30th June, 1936, there were 6 males, 2 females, total 8 patients, admitted who were under twenty years of age, or 9·30 per cent. There were 33 males, 25 females, total 58, or 67·44 per cent. admitted between the ages of twenty and fifty; while 8 males, 6 females, total 14, or 16·27 per cent., were admitted between fifty and seventy years of age. Finally those admitted seventy years of age and over numbered 5 males, 1 female, total 6, or 6·97 per cent. of the admissions.

Birthplaces of Patients Admitted.

Of the 52 males, 34 females, total 86 patients admitted and readmitted during the past twelve months ending on 30th June, 1936, 52 males, 33 females, total 85, or 98·83 per cent., were born within the confines of the British Empire; of these 48 males, 32 females, total 80, or 93·02 per cent. of the admissions, were born in Australasia, all of whom were born within the Commonwealth, while 35 males, 28 females, total 63, or 73·25 per cent., were born in Queensland, none of whom were aboriginals. Those born in the British Isles, forming 5·81 per cent. of the admissions, were 4 males, 1 female, total 5. Finally there were 0 male, 1 female, total 1, or 1·16 per cent., born in foreign countries outside the British Empire.

Conjugal Condition of Patients Admitted.

There were 35 males, 18 females, total 53, or 61·62 per cent., of the admissions, including readmissions, who were single; 17 males, 14 females, total 31, or 36·04 per cent., were married. Finally 0 males and 2 females, total 2, or 2·32 per cent., were widowed.

Districts Whence Patients Were Admitted.

Of the 52 males, 34 females, total 86 patients who were admitted and readmitted during the past twelve months ending on 30th June, 1936, 14 males, 6 females, total 20, or 23·25 per cent., came from Toowoomba, as compared with 17 males, 17 females, total 34, or 38·63 per cent., during the preceding twelve months ending on 30th June, 1935. From the North and North-western districts 0 males, 1 female, total 1, forming 1·16 per cent., were admitted. The Southern and South-western districts sent 36 males, 26 females, total 62, or 72·09 per cent., as compared with 27 males, 19 females, total 46, or 52·27 per cent. Finally the Central and Central-Western Districts sent 2 males, 1 female, total 3, or 3·48 per cent.

Religious Persuasions of Patients Admitted.

All of the patients admitted belonged to one or other of the various Christian religions. Thirty-two males, 24 females, total 56, or 65·11 per cent., were Protestants, of whom 19 males, 15 females, total 34, or 39·53 per cent. of the admissions belonged to the Church of England, and 3 males, 3 females, total 6, or 6·97 per cent., were Presbyterians. Nonconformists of various forms numbered 6 males, 5 females, total 11, or 12·79 per cent. The Roman Catholic Church was represented by 20 males, 10 females, total 30, forming 34·88 per cent. There were 4 males, 1 female, total 5, or 5·81 per cent., of the admissions, who were Lutherans.

Discharged Recovered.

During the past twelve months ending on 30th June, 1936, there were 26 males, 18 females, total 44, patients discharged recovered, forming males 50·00 per cent., females 52·97 per cent., total 51·16 per cent. on the admissions, including readmissions, as compared with 17 males, 15 females, total 32, or 35·41 per cent. males, females 37·50 per cent., total 36·36 per cent. for the previous year ending on 30th June, 1935.

The following tables show the number of recoveries and the recovery rate for each year respectively for the past twenty-seven and a-half years, together with the total recoveries and the total recovery rates for the above whole period:—

Table No. 1—Recoveries.

Year.	Males.	Females.	Total.
1909	21	12	33
1910	22	8	30
1911	31	11	42
1912	28	11	39
1913	26	8	34
1914	20	14	34
1915	25	11	36
1916	16	16	32
1917	21	10	31
1918	15	14	29
1919	15	9	24
1920	23	8	31
1921	15	11	26
1922	19	10	29
1923	24	12	36
1924	17	10	27
1925	20	12	32
1926–27—18 months	26	24	50
1927–28—12 ,,	12	9	21
1928–29—12 ,,	21	11	32
1929–30—12 ,,	21	17	38
1930–31—12 ,,	24	11	35
1931–32—12 ,,	28	17	45
1932–33—12 ,,	22	9	31
1933–34—12 ,,	12	24	36
1934–35—12 ,,	17	15	32
1935–36—12 ,,	26	18	44
Total recoveries for past 27½ years	567	342	909

TABLE No. 2—RECOVERY RATES ON THE ADMISSION AND READMISSIONS.

Year.	Males.	Females.	Total.
1909	43·75	70·58	50·70
1910	42·30	30·80	38·46
1911	52·72	42·30	49·38
1912	51·85	55·00	52·70
1913	48·14	36·84	46·57
1914	39·21	46·60	41·97
1915	56·81	40·74	50·70
1916	32·00	55·18	40·50
1917	47·73	34·48	42·47
1918	34·88	58·33	42·27
1919	30·00	34·62	31·58
1920	38·33	23·53	32·98
1921	34·88	42·30	37·68
1922	48·72	33·33	42·03
1923	43·63	41·38	42·86
1924	35·42	28·57	32·53
1925	40·00	40·00	40·00
1926–27*	48·15	41·38	44·64
1927–28—12 months	35·29	47·37	38·18
1928–29—12 ,,	34·45	27·5	31·68
1929–30—12 ,,	48·35	45·94	47·5
1930–31—12 ,,	55·8	34·37	46·6
1931–32—12 ,,	63·63	51.51	58·44
1932–33—12 ,,	50·00	30·00	41·88
1933–34—12 ,,	25·53	55·81	40·00
1934–35—12 ,,	35·41	37·50	36·36
1935–36—12 ,,	50·00	52·97	51·16
Recovery rate for past 27½ years	43·21	41·45	42·53

* The period 1926–27 is for 18 months.

CAUSES OF DEATHS.

Of the 29 males, 17 females, total 46 deaths, that occurred during the past twelve months ending on 30th June, 1936, there were 3 males, 2 females, total 5 deaths, from diseases of the nervous system, forming 10·86 per cent. of the total number of deaths. Diseases of the circulatory system were responsible for 12 males, 4 females, total 16, or 34·78 per cent., of the deaths. Deaths from diseases of the respiratory system occurred in one male, one female, total 2, or 4·34 per cent., while diseases of the alimentary system caused the deaths of 3 males, 3 females, total 6, or 13·04 per cent., of the total deaths. Deaths from diseases of the genito-urinary system accounted for 3 males, 3 females, total 6, or 13·04 per cent. Deaths from other diseases occurred in 7 males, 4 females, total 11, forming 23·91 per cent. of the total number of deaths. Post-mortems were held on 9 males, 7 females, total 16 deaths, or 34·78 per cent. of the deaths.

The following table shows the death rates per cent., based on the average number resident in this hospital, for each year respectively during the past twenty-seven and a-half years:—

Year.	Males.	Females.	Total.
1909	3·95	3·59	3·80
1910	5·22	4·68	4·94
1911	5·24	4·86	5·06
1912	6·57	3·71	5·17
1913	8·20	2·68	5·45
1914	3·71	4·34	3·97
1915	4·72	6·18	5·46
1916	4·92	4·68	4·81
1917	4·09	2·98	3·56
1918	3·56	4·75	4·14
1919	7·82	5·64	6·63
1920	4·38	5·01	4·71
1921	4·71	5·54	5·15
1922	4·53	3·88	4·19
1923	5·04	3·02	4·09
1924	4·29	3·20	3·77
1925	4·27	3·11	3·71
1926–7*	9·46	6·18	7·86
1927–8—12 months	3·74	3·56	3·65
1928–9—12 ,,	6·03	4·94	5·40
1929–30–12 ,,	5·31	4·80	5·10
1930–31–12 ,,	2·10	2·36	2·33
1931–32–12 ,,	4·49	2·47	3·51
1932–33—12 ,,	5·79	5·75	5·77
1933–34—12 ,,	4·34	4·37	4·35
1934–35—12 ,,	6·83	5·19	6·02
1935–36—12 ,,	5·10	2·93	4·03

* 1926–27 is for the period of 18 months ending 30th June, 1927.

MAGISTERIAL INQUIRY.

No magisterial inquiry was held at this hospital during the twelve months ending on 30th June, 1936.

HONORARY VISITING STAFF.

Dr. Woodhill, the Honorary Visiting Physician, was called in as a consultant on two occasions during the past year. Dr. Row, as Hon. Consulting Surgeon, visited this hospital on two occasions and no operation was performed. Dr. Sinclair, as Hon. Consulting Surgeon, was not called in for consultation on any case needing his attention.

The Visiting Dentist, Mr. J. E. B. McLean, has during the past twelve months examined 757 males, 270 females, total 1,027 patients, and has performed 511 extractions from male patients and 259 extractions from female patients, a total of 770 extractions altogether. No other dental work was carried out. Twenty-four patients, 10 males, 14 females, were taken to the Dental Clinic at the Toowoomba General Hospital during the year, for dentures of whom 10 males, 10 females, total 20, secured full sets while 4 females had upper sets only.

OFFICIAL VISITORS.

During the past year Dr. J. Coffey, Deputy Director of Health was appointed as the Medical Official Visitor in place of Dr. Sinclair. Mr. Marcus Gallagher was retired as Visiting Justice having retired from the Public Service, and Mr. P. G. Knyvett, P.M., Toowoomba, has been appointed to the vacancy.

Mr. Shay as Honorary Visiting Chiropodist treated 102 males, 176 females, total 278 patients.

ESCAPES.

Ten males, 3 females, total 13 patients escaped, all of whom were found and brought back to hospital within a few hours.

BIRTHS.

No birth occurred in this hospital during the year ending on 30th June, 1936.

Wassermann Test.

Wassermann tests were carried out by the Health Department's Laboratory in Toowoomba on blood specimens submitted from 50 males, 30 females, total 80 patients out of the 52 males, 34 females, total 86 patients admitted and readmitted during the past year.

The details of the Wassermann tests were as follows:—

—	Males.	Females.	Total.
Decidedly positive	2	..	2
Positive	..	..	..
Slightly positive	..	..	..
Total all degrees of positive re-actions	2	..	2
Percentage of all degrees of positive re-actions to admissions	3·84	..	2·32

General Paralysis of the Insane.

—	Males.	Females	Total.
Remaining on 1st July, 1935 ..	2	..	2
Admitted during twelve months ..	2	..	2
Total under treatment during twelve months	4	..	4
Discharged or Transferred during 12 months	..	..	..
Died during twelve months ..	..	..	..
Remaining on 30th June, 1936 ..	4	..	4
Percentage of general paralytics to total number under treatment	0·63	..	0·31
Percentage of general paralytics remaining to number of patients remaining on 30th June, 1936	0·71	..	0·34
Percentage of general paralytics admitted to the admissions in 1935-36	3·84	..	2·32

Epileptic Patients.

—	M.	F.	Total.
Remaining on 1st July, 1935 ..	48	53	101
Admitted during twelve months ..	8	6	14
Transferred from Goodna	..	2	2
Total under treatment during twelve months ending 30th June, 1936	56	61	117
Discharged ..	2	..	2
Transferred ..	..	2	2
Died	1	1	2
Total discharged, transferred, and died	3	3	6
Remaining on 30th June, 1936 ..	53	58	111
Percentage of epileptics under treatment to total number under treatment	8·87	9·37	9·12
Percentage of epileptics remaining to total number remaining on 30th June, 1935	9·41	9·53	9·47
Percentage of epileptics admitted to the admissions	15·37	17·64	16·27

Returned Soldier Patients.

The Red Cross Society who had in years past regularly sent weekly parcels of tobacco and cigarettes have had to curtail the frequency of these gifts during the past year by sending them only fortnightly.

The Returned Soldiers' Association of Toowoomba gave, as on previous Christmases, parcels of fruit, sweets, and tobacco, all of which were greatly appreciated by the returned soldier patients.

The following tables show the number of returned soldiers who have been certified as insane and admitted or transferred from another mental hospital in this State to Toowoomba—A, during the past twelve months; B, from the commencement of the war up to 30th June, 1936:—

Table A.

—	Admitted.	Transferred from Goodna.	Discharged or Transfd.	Died.	Remaining.
Returned soldier patients	5	..	5	..	..

Table B.

—	Admitted.	Transferred from Goodna.	Discharged.	Died.	Remaining.
Returned soldier patients	126	13	85	9	45

Patients Remaining in the Hospital on 30th June, 1936.

There were 578 males, 569 females, total 1,147 patients on the books of this hospital on 30th June, 1935, of whom 13 males, 19 females, total 32, were on leave of absence. There were, therefore, 551 males, 588 females, total 1,139 patients in residence at this hospital on 30th June, 1936, as compared with 565 males, 550 females, total 1,115, in residence at the termination of the previous twelve months ending on 30th June, 1935, the total increase of 24 patients being more due to the number of female patients transferred from Goodna than to any increase of direct admissions.

Recreation.

During the year a "Talkie Apparatus" was installed and in November, 1935, the first programme was given. These entertainments have been continued weekly during the summer, and fortnightly during the winter. The installation of the Talkie has been greatly appreciated by the patients and is eagerly looked forward to. The programmes generally average two and a-half hours and are of a high standard. Patients' dances have been held regularly each week in the winter months, the music being supplied by the staff orchestra. Concerts have been given by the Caledonian Society and by McLander and party, which were greatly appreciated by all. Band concerts were generously given by the City Band, the Salvation Army Band, and the Municipal Band. The wireless sets provided in the wards are still appreciated by the patients.

Cricket, football, and tennis matches have been held during the past year on the Recreation ground providing the patients with outdoor spectacular entertainment.

As in former years, the patients' Annual Sports were held on New Year's Day and were a great success.

The Annual Patients' Fancy Dress Ball was again held during the year and was as big a success as ever.

Religious Services.

Religious services have been held regularly as in past years, viz., Church of England, Presbyterian, and Roman Catholic services, each being held once a month.

Accommodation.

No. of Ward.	No. of Dormitory.	Total Capacity in cubic feet in each Dormitory.	Cubic feet per Patient in each Dormitory. 1934–35.	Cubic feet per Patient in each Dormitory. 1935–36.
Male Division.				
A ..	1	18,738	669	669
	2	16,698	614	614
	3	15,678	526	526
	4	2,160	720	720
	5	11,040	1,380	1,380
B ..	1	25,386	725	725
	2	25,386	746	723
	3	15,606	625	625
	4	4,118	686	686
C ..	1	25,386	746	746
	2	25,386	705	705
	3	15,606	625	625
	4	3,519	703	703
D ..	1	25,386	769	769
	2	25,386	746	746
	3	15,606	600	600
	4	3,467	693	693
E ..	1	24,664	913	900
	2	21,252	885	885
	3	28,172	880	842
	4	21,252	924	924
	*5	4,951	708	708
	*6	4,951	708	708
F ..	1	25,979	787	800
Hospital	1	10,416	744	744
	*2	4,420	491	491
Female Division.				
1.. ..	1	18,738	650	721
	2	16,434	551	570
	3	15,678	712	712
	4	11,040	1,577	1,521
2.. ..	1	25,341	817	817
	2	25,341	873	817
	3	16,486	524	524
3.. ..	1	25,386	651	651
	2	25,386	746	746
	3	15,606	557	557
4.. ..	1	25,386	746	746
	2	25,386	624	725
	3	15,606	600	600
5.. ..	1	24,664	952	952
	2	21,252	817	817
	3	28,172	805	787
	4	21,252	885	885
	*5	4,951	825	825
	*6	4,951	825	825
6.. ..	1	25,979	787	787
Hospital	1	10,416	800	800
	*2	4,420	402	402

* Veranda (open air) Dormitories.

Farm and Garden Produce.

The following table shows the quantities of vegetables and farm produce grown at this institution during each of the past fourteen years:—

Year Ending—	Vegetables.	Farm Produce. Hay.	Maize.	Ensilage.	Green Feed.	Pumpkins.	Barley.
	T. cwt. qr. lb.	Tons.	T. cwt. qr. lb.	Tons.	Tons.	Tons cwt.	Tons.
30th June, 1923	10 8 2 18	46	4 1 2 0	75	50	3 10	..
30th June, 1924	11 13 2 25	61	9 15 0 0	100	30	..	..
30th June, 1925	10 12 3 2	61	12 15 0 0	100	40	..	..
30th June, 1926	9 8 1 19	60	11 9 2 0	100	60	1 0	..
30th June, 1927	18 12 0 8	63	12 19 2 0	100	60	2 10	..
30th June, 1928	12 15 2 26	63	15 7 2 0	100	55	..	..
30th June, 1929	13 14 3 9	54	14 5 0 0	100	50	..	..
30th June, 1930	30 18 3 11	48	9 0 0 0	100	90	..	..
30th June, 1931	40 5 0 26	31	..	150	133	..	..
30th June, 1932	45 12 3 27	78	11 5 0 0	80	72	10 0	..
30th June, 1933	52 12 0 15	112	11 5 0 0	233	78	5 1	..
30th June, 1934	89 5 2 16	180	20 5 0 0	80	14	..	..
30th June, 1935	98 4 0 4	147	131 0 0 0	70	7	..	16
30th June, 1936	82 0 1 10	110	262 5 0 0	156	30	..	48

Expenditure Table.

(*Average number of Patients Daily Resident during the twelve months,* 1,138.)

	£	s.	d.		£	s.	d.
Total Expenditure	64,483	8	1	Gross cost per patient for twelve months	56	13	3
Maintenance collected by Curator ..	7,887	1	8	Net cost per patient for twelve months	49	4	5
Sales	580	5	10	Gross cost per patient per week ..	1	1	0
Net Expenditure	56,016	0	7	Net cost per patient per week	0	18	11

Table I.—Toowoomba.

ADMISSIONS, READMISSIONS, DISCHARGES, AND DEATHS FOR THE TWELVE MONTHS ENDING 30TH JUNE, 1936.

	Males.	Females.	Total.	Males.	Females.	Total.
On the books of the Hospital on 1st July, 1935				578	569	1,147
Admitted for the first time during the twelve months ..	42	31	73			
Readmitted during the twelve months	10	3	13			
Transferred from Goodna	1	48	49			
Transferred from Ipswich	..	..	..	53	82	135
Total under treatment during the year				631	651	1,282
Discharged, died, transferred, &c., during the year—						
Discharged recovered	26	18	44			
„ relieved	10	3	13			
„ not improved	3	1	4			
Transferred to Goodna	..	4	4			
Died	29	17	46			
Total discharged, died, transferred, &c.				68	43	111
Remaining on books of Hospital on 30th June, 1936				563	608	1,171
Average number daily resident during the year				558	580	1,138
On leave 30th June, 1936				12	20	32

Table II.—Toowoomba.

Admissions, Discharges, and Deaths, with the Proportion of Recoveries and Deaths per Cent., during the Year ending 30th June, 1936.

Admitted			Re-admitted.			Discharged. Recovered.			Discharged. Relieved.			Discharged. Not Improved.			Deaths.			Remaining on 30th June, 1936.			Average Number Daily Resident.			Percentage of Recoveries on Admissions.			Percentage of Patients Relieved.			Percentage of Deaths on Average Number Resident.		
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
42	31	73	10	3	13	26	18	44	10	3	13	3	1	4	29	17	46	563	608	1,171	558	580	1,138	50·00	52·97	51·16	19·23	8·82	15·11	5·10	2·93	4·03

Table III.—Toowoomba.

CAUSES OF INSANITY IN THE PATIENTS ADMITTED DURING THE YEAR ENDING 30TH JUNE, 1936.

Causes.	PREDISPOSING.			EXCITING.			TOTAL.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Moral—									
Fright and shock	..	..	..	1	1	2	1	1	2
Mental anxiety and overwork	..	..	..	..	2	2	..	2	2
Domestic trouble and bereavement	..	..	..	..	1	1	..	1	1
Business worries	..	..	..	2	..	2	2	..	2
Religious excitement	..	..	..	..	1	1	..	1	1
Physical—									
Alcohol	..	..	..	3	1	4	3	1	4
Surgical operations	..	..	..	1	..	1	1	..	1
Puerperal	..	..	..	..	..	..	..	..	..
Disease of brain	..	..	..	1	1	2	1	1	2
General paralysis of the insane	..	..	..	2	..	2	2	..	2
Syphilis	..	..	..	..	..	..	..	..	..
Senility	4	2	6	..	..	..	4	2	6
Heredity	2	1	3	..	..	..	2	1	3
Epilepsy, acquired	..	..	..	8	6	14	8	6	14
Previous attacks	14	7	21	..	..	..	14	7	21
Influenza	..	..	..	2	2	4	2	2	4
Not ascertained	..	..	..	..	..	..	8	3	11
Not insane	..	..	..	..	..	..	2	1	3

Table IV.—Toowoomba.

CAUSES OF DEATH DURING THE YEAR ENDING 30TH JUNE, 1936.

Causes.	Males.	Females.	Total.
General Diseases—			
Enteric fever	..	1	1
Debility	1	..	1
Senility	1	1	2
Pernicious anaemia	3	..	3
Influenza	1	..	1
Carcinoma of breast	..	1	1
Carbuncle	1	..	1
Diseases of Nervous System—			
Cerebral syphilis	1	..	1
Cerebral hæmorrhage	1	..	1
Epilepsy	1	2	3
Diseases of Circulatory System—			
Arteriosclerosis	7	3	10
Fatty disease of heart	1	..	1
Coronary atheroma	1	..	1
Cardiac hypertrophy	1	..	1
Myocarditis	1	..	1
Valvular disease of heart	1	1	2
Diseases of Respiratory System—			
Lobar pneumonia	..	1	1
Bronchial asthma	1	..	1
Diseases of Alimentary System—			
Carcinoma of stomach	1	2	3
Chronic colitis	1	..	1
Carcinoma of large intestine	1	..	1
Ulceration of bowel	..	1	1
Diseases of Genito-Urinary System—			
Chronic interstitial nephritis	1	2	3
Carcinoma of Prostate	1	..	1
Chronic cystitis	1	..	1
Senile endometritis	..	1	1
Miscellaneous—			
Septic infection	..	1	1
Totals	29	17	46

Table V.—Toowoomba.

Length of Residence in Hospital of the Patients who Recovered, or Died during the Year, or Remained in the Hospital on the 30th June, 1936.

Length of Residence.	Discharges.						Deaths.			Remaining.		
	Recovered.			Relieved or not improved.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month	1	..	1	1	1	2	1	..	1	3	13	16
1 month and under 3 months	6	2	8	1	2	3	..	..	..	..	1	1
3 months and under 6 months	3	2	5	4	1	5	1	1	2	5	8	13
6 months and under 9 months	7	2	9	..	..	..	..	..	..	8	3	11
9 months and under 12 months	5	1	6	1	1	2	1	..	1	15	45	60
1 year and under 2 years ..	2	7	9	4	2	6	1	1	2	41	29	70
2 years and under 3 years ..	..	2	2	..	..	..	3	1	4	58	47	105
3 years and under 5 years ..	1	1	2	2	..	2	1	2	3	56	59	115
5 years and under 7 years ..	..	1	1	..	..	..	..	1	1	72	46	118
7 years and under 10 years ..	..	..	..	..	..	..	2	2	4	69	56	125
10 years and under 12 years ..	..	..	..	..	..	..	2	1	3	62	94	156
12 years and under 15 years ..	..	..	..	..	..	..	4	1	5	45	51	96
15 years and under 20 years ..	1	..	1	..	1	1	3	1	4	42	52	94
20 years and over	..	..	..	..	..	..	10	6	16	87	104	191
Totals	26	18	44	13	8	21	29	17	46	563	608	1,171

Table VI.—Toowoomba.

Ages of Patients whose Admissions, Discharges, or Deaths occurred during the Year, and of those who Remained in the Hospital on 30th June, 1936.

Ages.	Admissions.			Discharges.						Deaths.			Remaining.		
				Recovered.			Relieved and not improved.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5 years and under 10 years ..	..	1	1	..	..	..	..	..	..	..	..	..	1	2	3
10 years and under 15 years ..	3	..	3	1	..	1	2	..	2	..	..	..	4	2	6
15 years and under 20 years ..	3	1	4	1	1	2	1	..	1	..	..	..	9	12	21
20 years and under 30 years ..	12	6	18	6	4	10	6	1	7	2	2	4	39	33	72
30 years and under 40 years ..	11	14	25	7	4	11	4	4	8	..	..	..	88	111	199
40 years and under 50 years ..	10	5	15	8	7	15	..	2	2	2	4	6	128	121	249
50 years and under 60 years	5	3	8	3	2	5	..	1	1	7	1	8	120	140	260
60 years and under 70 years ..	3	3	6	..	..	..	..	..	..	8	6	14	102	123	225
70 years and under 80 years ..	5	..	5	..	..	..	..	..	..	8	1	9	58	46	104
80 years and under 90 years ..	..	1	1	..	..	..	..	..	..	2	2	4	7	14	21
90 years and over	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Unknown	..	..	..	..	..	..	..	..	..	..	1	1	6	4	10
Totals	52	34	86	26	18	44	13	8	21	29	17	46	563	608	1,171

Table VII.—Toowoomba.

Condition as to Marriage of Patients whose Admissions, Discharges, and Deaths occurred during the Year, and those who Remained in the Hospital on 30th June, 1936.

Condition as regards Marriage.	Admissions.			Discharges.						Deaths.			Remaining.		
				Recovered.			Relieved and not improved.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Single	35	18	53	21	9	30	12	6	18	21	8	29	469	303	772
Married	17	14	31	4	9	13	1	2	3	6	7	13	76	249	325
Widowed	..	2	2	..	..	..	..	..	..	2	2	4	7	32	39
Divorced	..	..	..	1	..	1	..	..	..	..	..	..	3	19	22
Unknown	..	..	..	..	..	..	..	..	..	..	..	..	8	5	13
Totals	52	34	86	26	18	44	13	8	21	29	17	46	563	608	1,171

Table VIII.—Toomoomba.

Religious Persuasions of the Patients whose Admissions, Discharges, and Deaths occurred during the Year, and of those who Remained in the Hospital on 30th June, 1936.

Religious Persuasions.	Admissions.			Discharges.						Deaths.			Remaining.		
				Recovered.			Relieved and not improved.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Protestants—															
Church of England	19	15	34	8	7	15	5	5	10	7	5	12	198	247	445
Presbyterian	3	3	6	2	..	2	..	1	1	2	2	4	54	59	113
Methodist	4	4	8	2	2	4	2	2	4	2	2	4	27	40	67
Baptist	..	1	1	1	1	2	..	..	..	..	1	1	5	6	11
Lutheran	4	1	5	1	..	1	2	..	2	5	1	6	27	27	54
Congregational	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4
Salvation Army	..	..	..	..	..	..	..	..	..	1	..	1	..	7	7
Others	2	..	2	1	1	2	1	..	1	2	1	3	12	5	17
Roman Catholic	20	10	30	9	7	16	3	..	3	9	4	13	211	194	405
Greek Church	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Hebrew	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Mohommedan	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Pagan	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Unknown	..	..	..	2	..	2	..	..	..	1	1	2	23	18	41
Totals	52	34	86	26	18	44	13	8	21	29	17	46	563	608	1,171

Table IX.—Toowoomba.

Birthplaces of Patients in the Hospital during the Year ending 30th June, 1936.

Birthplaces.	Admitted.			Remaining.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	11	1	12	57	32	89
Victoria	2	2	4	20	11	31
Queensland (white)	35	28	63	281	384	665
Queensland (black)	..	..	..	..	2	2
South Australia	..	..	..	9	4	13
West Australia	..	..	..	2	..	2
New Zealand	..	..	..	8	3	11
Tasmania	..	1	1	4	1	5
England and Wales	3	..	3	68	71	139
Scotland	1	..	1	18	20	38
Ireland	..	1	1	37	40	77
India and Ceylon	..	..	..	2	2	4
Africa	..	..	..	2	..	2
Czecho-Slovaka	..	..	..	3	1	4
Denmark	..	..	..	9	3	12
France	..	..	..	1	..	1
Greece	..	..	..	..	1	1
Germany	..	1	1	10	16	26
Italy	..	..	..	8	1	9
Norway	..	..	..	2	..	2
Sweden	..	..	..	3	..	3
Russia	..	..	..	4	1	5
Other European Countries	..	..	..	8	4	12
China	..	..	..	..	..	..
Other Asiatic Countries	..	..	..	1	..	1
South America	..	..	..	1	..	1
United States of America	..	..	..	1	3	4
Unknown	..	..	..	4	8	12
Totals	52	34	86	563	608	1,171

Table X.—Toowoomba.

Forms of Mental Disorder in Patients Admitted during the Year ending 30th June, 1936.

Forms of Mental Disorder.	Males.	Females.	Total.
Manic Depressive Psychosis—			
Mania—			
Acute	8	1	9
Chronic	1	..	1
Melancholia—			
Delusional	..	..	..
Chronic	1	1	2
Acute	3	2	5
Acute confusional or exhaustive psychosis	1	1	2
Alcoholic Psychosis—			
Acute hallucinosis	2	..	2
Chronic hallucinosis	..	1	1
General paralysis of the insane	2	..	2
Paraphrenia	3	2	5
Schizophrenia	14	13	27
Senile dementia	5	3	8
Epilepsy, acquired	8	6	14
Congenital mental deficiency (without epilepsy)	2	3	5
Not insane	2	1	3
Totals	52	34	86

Table XI.—Toowoomba.

Bodily Health and Condition of Patients Admitted during the Twelve Months ending 30th June, 1936.

Bodily Condition.	Males.	Females.	Total.
In apparently good health and condition	39	22	61
In indifferent health and reduced condition	2	3	5
In bad health and exhausted condition	11	9	20
Totals	52	34	86

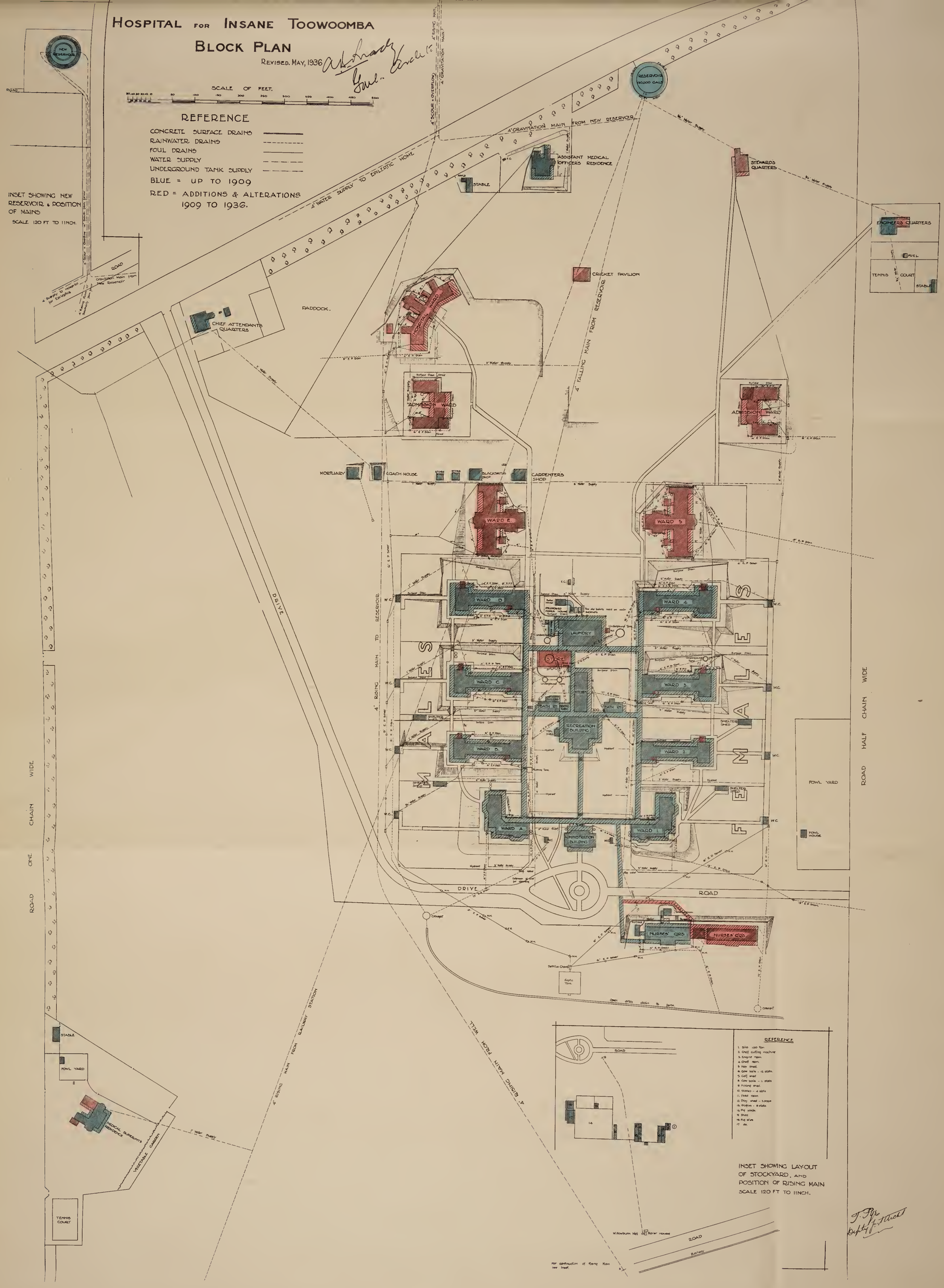

HOSPITAL FOR INSANE TOOWOOMBA
BLOCK PLAN
REVISED. MAY, 1936
SCALE OF FEET.
REFERENCE
CONCRETE SURFACE DRAINS
RAINWATER DRAINS
FOUL DRAINS
WATER SUPPLY
UNDERGROUND TANK SUPPLY
BLUE = UP TO 1909
RED = ADDITIONS & ALTERATIONS 1909 TO 1936.
INSET SHOWING NEW RESERVOIR & POSITION OF MAINS
SCALE 120 FT TO 1 INCH.
NEW RESERVOIR
RESERVOIR 150,000 GALS
4" GRAVITATION MAIN FROM NEW RESERVOIR
4" WATER SUPPLY TO EPILEPTIC HOME
ASSISTANT MEDICAL OFFICERS RESIDENCE
STABLE
STEWARDS QUARTERS
ENGINEERS QUARTERS
FUEL
TENNIS COURT
STABLE
CRICKET PAVILION
PADDOCK.
CHIEF ATTENDANTS QUARTERS
HOSPITAL WARD
ADMISSION WARD
ADMISSION WARD
4" FALLING MAIN FROM RESERVOIR
MORTUARY
COACH HOUSE
BLACKSMITHS SHOP
CARPENTERS SHOP
WARD E.
WARD S.
WARD D.
WARD 4.
LAUNDRY
STORE
WARD C.
WARD 3.
RECREATION BUILDING
WARD B.
WARD 2.
WARD A.
WARD 1.
ADMINISTRATION BUILDING
FEMALES
FEMALES
FOWL YARD
FOWL HOUSE
DRIVE
ROAD
NURSES' QRS.
NURSES' QRS.
4" RISING MAIN TO RESERVOIR
4" RISING MAIN FROM RAILWAY STATION
4" RISING MAIN FROM WELL
ROAD ONE CHAIN WIDE
ROAD HALF CHAIN WIDE
STABLE
FOWL YARD
MEDICAL SUPERINTS RESIDENCE
VEGETABLE GARDEN
TENNIS COURT
REFERENCE
INSET SHOWING LAYOUT OF STOCKYARD, AND POSITION OF RISING MAIN
SCALE 120 FT TO 1 INCH.
ROAD
Railway

Table XII.—Toowoomba.

PREVIOUS OCCUPATIONS OF PATIENTS ADMITTED DURING THE TWELVE MONTHS ENDING 30TH JUNE, 1936.

Occupations.	Number.	Occupations.	Number.
Males.		*Females.*	
Ambulance bearer	1	Book-keeper	1
Accountant	1	Domestic duties	7
Builder	1	Governess	1
Bookmaker's clerk	1	Housewife	11
Bushworker	2	Nil	10
Cattle buyer	1	Student	1
Chemist	1	Teacher	1
Commercial traveller	1	Typiste	2
Farmer	4		
Farm hand	1		
Grazier	1		
Horse breaker	1		
Invalid pensioner	2		
Labourer	13		
Motor mechanic	2		
Nil	8		
Old-age pensioner	3		
Orchardist	2		
Postmaster	1		
Share farmer	1		
Stockman	1		
Selector	1		
Station hand	1		
Solicitor	1		
Total	52	Total	34

Table XIII.—Toowoomba.

DISTRICTS WHENCE PATIENTS WERE RECEIVED DURING THE YEAR ENDING 30TH JUNE, 1936.

Districts.	Males.	Females.	Total.
Toowoomba	14	6	20
North and North-Western Districts	..	1	1
Central and Central-Western Districts	2	1	3
South and South-Western Districts	36	26	62
Totals	52	34	86

Table XIV.—Toowoomba.

ARTICLES MADE UP BY PATIENTS IN THE WORKROOM DURING THE YEAR ENDING 30TH JUNE, 1936.

Name of Article.	Number.	Name of Article.	Number.
Aprons, assorted	201	Sheets, mangle	17
Bags, assorted	149	Shifts, assorted	66
Bandages, assorted	18	Screen covers	16
Bibs	156	Shirts	9
Blazers	27	Tablecloths	294
Blinds	59	Tray cloths	68
Brassiers	4	Tea cosy	3
Coats	9	Ticks, bed	416
Combinations, assorted	981	Towels, assorted	2,227
Covers, assorted	92	Washers, face	74
Curtains	20		
Drawers, assorted	365	Uniforms, Nurses—	
Dresses, assorted	1,329	Aprons	100
Fly veils	26	Belts	142
Gowns, night	944	Caps	125
Gowns, surgical, &c.	26	Collars	140
Hats	14	Dresses	274
Jackets, assorted	670	Straps, chin	12
Mattress protectors (hessian)	384		
Nets, mosquito	4	Articles repaired—	
Petticoats	360	Male division	9,896
Pillow slips	1,254	Female division	6,559
Pillow cases	237	Dresses, private	47
Pyjama suits	527	Coats, private	12
Sheets, calico	1,916		

HOSPITAL FOR THE INSANE, IPSWICH.

ADMISSIONS BY TRANSFER, DISCHARGES, AND DEATHS DURING THE TWELVE MONTHS FROM 1ST JULY, 1935, TO 30TH JUNE, 1936.

—	Males.	Females.	Total.
Number of patients in residence at the Hospital on 1st July, 1935	367	141	508
Number on leave of absence on 1st July, 1935	..	..	..
Total on the books of the Hospital on 1st July, 1935..	367	141	508
Admissions by transfer during twelve months ending 30th June, 1936	28	9	37
Total on books and under treatment during the twelve months	395	150	545

	Males.	Females.	Total.
Discharged and transferred	2	1	3
Died	24	6	30

	Males.	Females.	Total.
Total discharges, transfers, and deaths	26	7	33
Remaining on the books of the Hospital on 30th June, 1936	369	143	512
Number on leave of absence on 30th June, 1936	3	0	3
Number in residence in the Hospital on 30th June, 1936	366	143	509
Average number daily resident during the twelve months	367	142	509

The following table gives the number in residence in this hospital at the end of each year for the past twenty-seven and a-half years, together with the daily average and the total number under treatment for the same period; also the increase or decrease for each year respectively:—

Year.	In Residence at the end of each Year.	Daily Average Resident during each Year.	On Books and under Treatment during each year.		
			Total Number.	Increase.	Decrease.
1909 ..	235	237	257	..	..
1910 ..	237	238	254	..	3
1911 ..	263	240	291	37	..
1912 ..	289	274	314	23	..
1913 ..	290	288	312	..	2
1914 ..	293	290	314	2	..
1915 ..	325	310	354	40	..
1916 ..	329	330	351	..	3
1917 ..	424	341	426	75	..
1918 ..	445	435	480	54	..
1919 ..	446	445	473	..	7
1920 ..	446	449	477	4	..
1921 ..	447	449	475	..	2
1922 ..	447	449	474	..	1
1923 ..	447	446	477	3	..
1924 ..	446	446	472	..	5
1925 ..	446	449	469	..	3
1926–27 *	446	447	485	16	..
1927–28	450	449	468	..	17
1928–29	453	452	485	17	..
1929–30	456	454	479	..	6
1930–31	456	456	474	..	5
1931–32	461	457	478	4	..
1932–33	461	460	480	2	..
1933-34	493	465	521	41	..
1934-35	508	497	534	13	..
1935–36	509	509	545	11	..

* This period is for 18 months. All other periods are 12 months each.

ADMISSIONS.

All the admissions into this hospital, as in previous years, are by transfer only. All the transfers were from Goodna Mental Hospital. These transfers only take place to fill vacancies caused by deaths or discharges occurring in this hospital.

The following table shows the number of patients transferred to this hospital for each of the past twenty-seven and a-half years respectively:—

Year.	Admissions by Transfer.		
	Males.	Females.	Total.
1909	56	..	56
1910	15	..	15
1911	25	26	51
1912	18	28	46
1913	16	6	22
1914	17	7	24
1915	55	5	60
1916	20	5	25
1917	69	50	119
1918	26	28	54
1919	16	9	25
1920	22	7	29
1921	18	6	24
1922	19	5	24
1923	22	5	27
1924	19	3	22
1925	15	4	19
1926–27*	30	4	34
1927–28	9	11	20
1928–29	25	9	34
1929–30	20	4	24
1930–31	11	7	18
1931–32	16	5	21
1952–33	14	4	18
1933–34	38	21	59
1934–35	32	7	39
1935–36	28	9	37
Totals for past 27½ years ..	671	275	946

* The period 1926–27 is for 18 months.

BODILY CONDITION OF PATIENTS ON ADMISSION.

As practically all the cases admitted by transfer are chronic mental cases, and are not usually sent here until the acute stages have subsided, most of the patients selected for transfer are in fair bodily health and condition. Of the 28 males, 9 females, total 37, admitted by transfer, 23 males, 9 females, total 32, or 82·14 per cent. males, 100 per cent. females, total 86·48 per cent., were in good bodily health and condition. There were 4 males, total 4, admitted in indifferent bodily health, giving a percentage of 14·28 males, total 10·81 per cent. Finally, one male patient was admitted in bad

bodily health or condition, giving a percentage of males 3·57 and a percentage of 2·70 on the total of admissions.

Discharged Recovered.

As mentioned above, most of the patients admitted by transfer to this hospital have reached the chronic stage, and the probability of recovery is small. During the past year two patients were discharged recovered.

The following tables show the number of recoveries and the recovery rate per cent. for each of the past twenty-seven and a-half years, respectively, together with the total recoveries and recovery rates for the whole period:—

Table No. 1—Recoveries.

Year.	Males.	Females.	Total.
1909	2	..	2
1910	1	..	1
1911	2	..	2
1912	..	..	..
1913	..	2	2
1914	1	1	2
1915	1	1	2
1916	1	1	2
1917	3	..	3
1918	..	2	2
1919	..	3	3
1920	4	..	4
1921	3	1	4
1922	4	2	6
1923	4	1	5
1924	3	1	4
1925	1	1	2
1926-27*	10	1	11
1927-28	3	1	4
1928-29	1	1	2
1929-30	..	1	1
1930-31	1	..	1
1931-32	..	..	..
1932-33	..	1	1
1933-34	..	..	..
1934-35	..	..	..
1935-36	1	1	2
Total for past 27½ years	46	22	68

* This period is for 18 months.

Table No 2.—Recovery Rates on the Admissions by Transfer.

Year.	Males.	Females.	Total.
1909	3·57	..	3·57
1910	6·66	..	6·66
1911	8·00	..	3·92
1912	..	..	..
1913	..	33·30	9·09
1914	5·75	14·40	19·79
1915	1·81	20·00	3·33
1916	5·00	20·00	8·00
1917	4·34	..	2·50
1918	..	7·14	3·70
1919	..	33·30	12·00
1920	18·18	..	13·79
1921	16·60	16·60	16·60
1922	5·24	4·32	5·15
1923	18·18	20·00	18·51
1924	15·78	33·33	18·18
1925	6.66	25·00	10·52
1926-27*	33·3	25·00	32·35
1927-28	33·3	9·09	20·00
1928-29	4·00	11·11	5·88
1929-30	..	25·00	4·17
1930-31	9·09	..	5·55
1931-32	..	..	..
1932-33	..	25·00	5·50
1933-34	..	..	..
1934-35	..	..	..
1935-36	3·57	11·11	5·40
Recovery rate for past 27½ years	6·85	8·00	7·18

Deaths.

There were 24 males, 6 females, total 30 deaths, giving males 6·54 per cent., females 4·22, total 5·89 per cent., on the average number daily resident during the twelve months ending 30th June, 1936, as compared with 20 males, 3 females, total 23 deaths, or 5·57 per cent. males, 2·17 per cent. females, total 4·63 per cent. for the previous year ending on 30th June, 1935.

Post-mortems were held on 16 males, 1 female, total, 17 deaths.

General Paralysis of the Insane.

—	M.	F.	Total.
Remaining on 1st July, 1935	..	..	..
Admitted during 1935–36 by transfer ..	..	..	..
Total under treatment during 1935–36	..	..	..
Discharged or transferred during 1935–36 (M. .. F. .. T. ..)			
Died during 1935–36 .. (M. .. F. .. T. ..)			
Total discharged, transferred, and died during 1935–36	..	..	..
Remaining on 30th June, 1936	..	..	..
Percentage of general paralytics under treatment to total number of patients under treatment during 1935–36	..	..	..

Epileptic Patients.

—	M.	F.	Total.
Remaining on 1st July, 1935	16	18	34
Admitted during 1935–36 by transfer ..	5	1	6
Total under treatment during 1935–36	21	19	40
Discharged during 1935-36 (M. .. F. .. T. ..)			
Transferred during 1935-36 (M. .. F. .. T. ..)			
Died during 1934-36 .. (M. 1 F. 3 T. 4)			
Total discharged, transferred, and died during 1935–36	1	3	4
Remaining on 30th June, 1936	20	16	36
Percentage of epileptics under treatment to total number of patients under treatment during 1935–36	5·32	12·67	7·34
Percentage of epileptics remaining to number of patients remaining on 30th June, 1936	5·42	11·19	7·03

Red Cross Society.

As in former years, the Red Cross Society has forwarded regularly fortnightly supplies of tobacco and cigarettes for the returned soldier patients in this mental hospital, and, in addition, cakes, sweets, and fruit are forwarded at Christmas time.

Returned Soldier Patients.

The tables on following pages show the number of returned soldier patients who have been transferred from one of the other State Mental Hospitals to Ipswich—A, during the past year; B, from the commencement of the war up to 30th June, 1936.

Table A.

—	Admitted. By transfer.	Readmitted.	Previously Admitted Prior to the War.	Total Admitted.	Discharged. Recovered.	Discharged. Relieved or Not Improved.	Transferred.	Died.	Remaining.
From active service ..	..	..	..	..	..	..	..	..	..
From abroad, but who have not seen active service	..	..	..	..	..	..	..	..	..
From camp	..	..	..	..	..	..	..	..	..
Total	..	..	..	..	..	..	..	..	..

Table B.

—	Admitted.	Readmitted.	Previously Admitted Prior to the War.	Total Admitted.	Discharged. Recovered.	Discharged. Relieved or Not Improved.	Transferred.	Died.	Remaining.
From active service ..	36	..	..	36	8	..	1	3	24
From abroad, but who have not seen active service	..	..	..	..	..	..	..	..	..
From camp	..	..	..	..	..	..	..	..	..
Total	36	..	..	36	8	..	1	3	24

Causes of Death.

Of the 24 males, 6 females, total 30 deaths during the past twelve months, 1 male death, 1 female death, total 2 deaths, or 6·66 per cent. of the total number of deaths, were due to diseases of the nervous system. Diseases of the circulatory system were responsible for 6 males, 1 female, total 7 deaths, or 23·33 per cent., and diseases of the respiratory system were the causes of deaths in 5 males, 1 female, total 6, or 20·00 per cent. Senility was the cause of death in 8 males, 1 female, total 9, or 30·00 per cent. Diseases of genito-urinary system caused 1 male and 1 female, total 2 deaths, or 6·66 per cent. Two other causes of death occurred in 3 males, 1 female, total 4, or 13·33 per cent.

The following table shows the death rates per cent., calculated on the daily average number resident in this hospital, for each of the past twenty-seven and a-half years respectively:—

Year	Males.	Females.	Total.
1909	3·33	..	3·33
1910	6·00	..	6·00
1911	8·78	..	8·78
1912	5·81	14·28	6·93
1913	6·20	4·25	5·90
1914	6·24	4·17	5·86
1915	8·49	7·84	8·38
1916	4·67	5·88	4·86
1917	6·37	5·26	6·15
1918	6·07	8·49	6·66
1919	4·53	5·26	4·70
1920	5·30	3·40	4·90
1921	4·80	4·20	4·40
1922	4·72	2·66	3·35
1923	5·15	3·49	4·41
1924	3·95	0·85	3·13
1925	3·31	2·56	3·11
1926-27*	5·75	3·41	5·14
1927-28	1·20	7·60	2·80
1928-29	5·90	5·10	5·70
1929-30	5·60	2·60	4·80
1930-31	2·37	3·36	2·63
1931-32	2·95	4·20	3·28
1932-33	3·81	2·52	3·47
1933-34	5·91	2·47	4·94
1934-35	5·57	2·17	4·63
1935-36	6·54	4·22	5·89

* The period 1926-27 is for 18 months ending 30th June, 1927.

Magisterial Inquiry.

No magisterial inquiries were held during the past twelve months.

Escapes.

One male, 1 female, total 2 patients, escaped during the past twelve months ending on 30th June, 1936. Both were returned to the hospital within two to eight hours.

Recreation.

Indoor entertainments have been supplied to the patients as heretofore in the form of weekly dances, except in the summer, as well as numerous concerts kindly given by local artists. Each ward has a loud speaker operated from a central wireless set. Similarly to last year the staff of this hospital organised a patients' fancy dress ball, which was most successful. Appreciation is felt for the assistance provided by a number of local residents, and every endeavour is being made to ensure that this function will be an annual event.

Religious Services.

Religious services, which have been held regularly throughout the past year as formerly, consist of monthly Church of England and Roman Catholic and Methodist services, while the Salvation Army holds a quarterly service, and the Methodists distribute gifts of sweets, cakes, cigarettes and tobacco to every patient at Christmas.

Dental Treatment of Patients.

The hope expressed in the last annual report that a dentist would be appointed to the Ipswich Mental Hospital has not been realised. The benefit to the general health and comfort of the patients at Goodna and Willowburn Mental Hospitals is so great, than I beg to again strongly urge that the Sandy Gallop Mental Hospital be similarly supplied with the services of a Visiting Dentist.

Accommodation Table.

The following table gives the cubic space in each dormitory in all the wards of this hospital, together with the space per bed, in cubic feet:—

No. of Ward.	No. of Dormitory.	Total Capacity in cubic feet in each Dormitory.	Cubic feet per Patient in each Dormitory, 1934-35.	Cubic feet per Patient in each Dormitory, 1935-36.
Male Division.				
1	1	11,688	467	467
	*1A	1,440	480	480
	*1B	1,440	480	480
	2	11,688	576	576
	*2A	2,080	693	693
	*2B	2,080	693	693
	3	11,230	510	510
	4	11,230	510	510
	5	11,688	649	649
	*5A	2,080	520	520
	*5B	2,080	693	693
	6	11,688	467	467
	*6A	1,440	240	240
	*6B	1,440	480	480
2	1	16,320	582	582
	2	10,800	584	584
	3	10,800	584	584
	4	10,800	514	514
	5	10,800	514	514
3	1	6,578	822	822
Hospital ..	1	5,520	788	788
	*2	3,303	550	550
Female Division.				
1	1	15,100	719	719
	2	8,175	681	681
2	1	6,578	730	730
3	1	6,578	822	822
4	*1	7,000	473	473
	*2	7,000	473	473
Hospital ..	1	5,520	788	788
	*2	3,303	550	550

* Veranda (open-air) Dormitories.

Water Conservation Scheme.

This scheme has been in operation during the past year and has, in addition to providing the vegetable garden with an abundance of water, greatly reduced the annual water consumption, while over the same period additional services have been laid to ward and other flower gardens. The surplus water from the septic tank conservation has during the latter part of last year, been used on the farm cultivation with very encouraging results.

Farm and Garden Produce.

The vegetable garden has again been enlarged by approximately 1½ acres during the year and now comprises an area of between 7 and 8 acres, which in time should supply the patients in this hospital an ample amount of fresh vegetables.

The following table shows the quantities of vegetables and farm produce grown at this institution during the past thirteen years:—

Year ending—	Vegetables.	Farm Produce.		
		Chaff.	Hay.	Green Feed.
	Tons ewt. qr. lb.	Tons.	Tons.	Tons.
30-6-23 ..	34 17 2 14	11	15	34
30-6-24 ..	23 1 3 3	..	..	10
30-6-25 ..	28 2 0 16	16	..	76½
30-6-26 ..	22 17 2 20	9	..	34
30-6-27 ..	18 7 0 25	8	..	22
30-6-28 ..	23 11 3 26	20	..	44
30-6-29 ..	20 13 0 27	15½	..	27
30-6-30 ..	24 19 3 27	6½	7½	48
30-6-31 ..	21 11 3 1	9	..	63¼
30-6-32 ..	11 3 0 10	9¾	2	75½
30-6-33 ..	25 8 1 16	2½	..	58¼
30-6-34 ..	36 4 0 0	4	..	54½
30-6-35 ..	39 2 0 0	17¾	..	51¾
30-6-36 ..	46 10 0 0	8½	..	40¼

Expenditure Table.

(*Average number of Patients Daily Resident during the twelve months*, 509.)

	£	s.	d.
Total expenditure	40,869	14	4
Maintenance collected by Curator	2,350	1	11
Net expenditure	38,519	12	5
Gross cost per patient for twelve months ..	80	5	11
Net cost per patient for twelve months ..	75	13	6
Gross cost per patient per week	1	10	11
Net cost per patient per week	1	9	1

Table I.—Ipswich.

Admissions, Readmissions, Discharges, and Deaths, from 1st July, 1935, to 30th June, 1936.

	Males.	Females.	Total.
On books of the Hospital on 30th June, 1935	367	141	508
Admissions by Transfer during 12 months ending 30th June, 1936	28	9	37
Total on Books under treatment during 12 months	395	150	545
Discharged	2	1	3
Transferred	..	..	..
Died	24	6	30
Total Discharges, Transfers, and Deaths	26	7	33
Remaining on books of Hospital on 30th June, 1936	369	143	512
Average Number daily resident during the year	367	142	509
On leave of absence 30th June, 1936	3	..	3

Table II.—Ipswich.

Admissions, Discharges, and Deaths, with the Proportions of Recoveries and Deaths per Cent., from 1st July, 1935, to 30th June, 1936.

Cases Transferred to Ipswich which have been Treated before.			Discharged.									Died.			Remaining on 30th June, 1936.			Average Number Daily Resident.			Percentage of Recoveries on Admissions.			Percentage of Patients Relieved and not Improved.			Percentage of Deaths on Average Number Resident.		
			Recovered.			Relieved.			Not Improved.																				
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
28	9	37	1	1	2	...	...	...	1	...	1	24	6	30	369	143	512	367	142	509	3·57	11·11	5·40	3·57	...	2·70	6·54	4·22	5·89

Table IV.—Ipswich.

Causes of Deaths from 1st July, 1935, to 30th June, 1936.

Causes.	Males.	Females.	Total.
I iseases of Circulatory System—			
Arterio-sclerosis	4	..	4
Coronary artery degeneration	1	..	1
Lymphatic leukaemia	1	..	1
Myocardial degeneration	..	1	1
iseases of Genito-urinary System—			
Chronic nephritis	..	1	1
Cystitis	1	..	1
iseases of Respiratory System—			
Phthisis	3	1	4
Tubercular broncho-pneumonia and pleurisy	1	..	1
Miliary tuberculosis	1	..	1
Epidemic, Endemic, and Infectious Diseases—			
Influenza	1	..	1
Diseases of Central Nervous System—			
Traumatic epilepsy	..	1	1
Epileptic dementia	1	..	1
Diseases of Blood and Circulatory System—			
Syphilitic arteritis	1	..	1
General Diseases—			
Sarcoma of neck of left Femur	1	..	1
Phagodena of Back	..	1	1
Senility	8	1	9
Totals	24	6	30

Table V.—Ipswich.

Length of Residence in the Hospital of the Patients who were Discharged or Died during the Year, and of those who Remained on the Books of the Hospital on 30th June, 1936.

Length of Residence.	Discharges.						Deaths.			Remaining.		
	Recovered.			Relieved and not improved.								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month	..	..	..	..	..	..	..	..	..	4	2	6
1 month and under 3 months	..	..	..	..	..	..	2	..	2	4	1	5
3 months and under 6 months	..	..	..	..	..	..	1	..	1	4	5	9
6 months and under 9 months	1	..	1	..	..	..	1	..	1	9	..	9
9 months and under 12 months	..	..	..	1	..	1	..	..	..	3	1	4
1 year and under 2 years	..	1	1	..	..	..	3	1	4	29	5	34
2 years and under 3 years	..	..	..	..	..	..	1	1	2	30	19	49
3 years and under 5 years	..	..	..	..	..	..	1	..	1	23	8	31
5 years and under 7 years	..	..	..	..	..	..	..	..	..	23	8	31
7 years and under 10 years	..	..	..	..	..	..	1	..	1	36	17	53
10 years and under 12 years	..	..	..	..	..	..	1	1	2	15	1	16
12 years and under 15 years	..	..	..	..	..	..	1	..	1	27	11	38
15 years and under 20 years	..	..	..	..	..	..	6	2	8	69	43	112
20 years and over	..	..	..	..	..	..	6	1	7	93	22	115
Totals	1	1	2	1	..	1	24	6	30	369	143	512

Table VI.—Ipswich.

Ages of Patients whose Admissions, Discharges, and Deaths occurred during the Year and of those who Remained in the Hospital on 30th June, 1936.

Ages.	Admissions.			Discharges. Recovered.			Discharges. Relieved and not improved.			Deaths.			Remaining.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years	2	..	2	..	..	..	..	..	..	..	..	..	2	..	2
5 years and under 10 years ..	4	2	6	..	..	..	..	..	..	1	1	2	4	6	10
10 years and under 15 years ..	..	..	..	..	..	..	..	..	..	..	1	1	13	6	19
15 years and under 20 years ..	1	..	1	..	..	..	..	..	..	1	..	1	1	4	5
20 years and under 30 years ..	4	..	4	..	..	..	..	..	..	..	..	..	13	9	22
30 years and under 40 years ..	3	2	5	..	1	1	1	..	1	..	..	..	45	16	61
40 years and under 50 years ..	2	3	5	1	..	1	..	..	..	3	1	4	81	28	109
50 years and under 60 years ..	8	1	9	..	..	..	..	..	..	5	..	5	79	40	119
60 years and under 70 years ..	1	1	2	..	..	..	..	..	..	3	2	5	80	24	104
70 years and under 80 years ..	3	..	3	..	..	..	..	..	..	8	1	9	42	8	50
80 years and under 90 years ..	..	..	..	..	..	..	..	..	..	3	..	3	6	2	8
90 years and under 100 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Unknown	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3
Totals	28	9	37	1	1	2	1	..	1	24	6	30	369	143	512

Table VII.—Ipswich.

Conditions as regards Marriages of the Patients whose Admissions, Discharges, and Deaths occurred during the year, and of those who Remained in the Hospital on the 30th June, 1936.

Condition as regards Marriage.	Admissions.			Discharges. Recovered.			Discharges. Relieved and not improved.			Deaths.			Remaining.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Single	20	3	23	..	1	1	1	..	1	16	2	18	277	77	354
Married	7	6	13	1	..	1	..	..	..	4	4	8	60	48	108
Widowed	1	..	1	..	..	..	..	..	..	2	..	2	5	7	12
Divorced	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4
Unknown	..	..	..	..	..	..	..	..	..	2	..	2	26	8	34
Totals	28	9	37	1	1	2	1	..	1	24	6	30	369	143	512

Table VIII.—Ipswich.

Religious Persuasions of the Patients whose Admissions, Discharges, and Deaths occurred during the Year, and of those who Remained on the Books of the Hospital on 30th June, 1936.

Religious Persuasions.	Admissions.			Discharges. Recovered.			Discharges. Relieved and not improved.			Deaths.			Remaining.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Church of England	7	6	13	1	..	1	..	..	..	7	..	7	128	54	182
Presbyterians	2	..	2	..	..	..	..	..	..	..	..	..	32	11	43
Congregationalists	..	..	..	..	..	..	..	..	..	..	..	..	6	3	9
Lutheran	2	..	2	..	..	..	..	..	..	1	..	1	15	1	16
Roman Catholic	6	1	7	..	1	1	..	..	..	8	3	11	111	49	160
Greek	1	..	1	..	..	..	..	..	..	..	..	..	7	2	9
Pagan	..	..	..	..	..	..	..	..	..	3	..	3	4	..	4
Methodist	3	1	4	..	..	..	..	..	..	..	2	2	12	10	22
Baptist	..	1	1	..	..	..	..	..	..	..	..	..	5	5	10
Salvation Army	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Hebrew	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
Mohommedan	..	..	..	..	..	..	..	..	..	..	..	..	8	..	8
Brethren	2	..	2	..	..	..	..	..	..	..	..	..	3	..	3
Church of Christ	1	..	1	..	..	..	1	..	1	..	..	..	2	..	2
Confuscian	..	..	..	..	..	..	..	..	..	..	..	..	5	..	5
Unknown	4	..	4	..	..	..	..	..	..	5	1	6	27	6	33
Totals	28	9	37	1	1	2	1	..	1	24	6	30	369	143	512

Table IX.—Ipswich.

Birthplaces of Patients in the Hospital from 1st July, 1935, to 30th June, 1936.

Birthplaces.	Admissions.			Remaining.		
	Males.	Females.	Total.	Males.	Females.	Total.
Australasia—						
New South Wales	2	1	3	21	7	28
Victoria	..	..	..	5	2	7
Queensland (White)	13	5	18	155	86	241
Queensland (Aboriginal)	3	..	3	13	2	15
South Australia	1	..	1	3	1	4
Western Australia	..	..	..	1	..	1
New Zealand	..	..	..	1	..	1
Northern Territory	1	..	1	1	..	1
United Kingdom—						
England and Wales	..	1	1	43	15	58
Scotland	1	1	2	10	6	16
Ireland	..	..	..	42	13	55
Other British Possessions—						
India	2	..	2	7	..	7
Canada	..	..	..	2	..	2
South Africa	..	..	..	8	..	8
Ceylon	1	..	1	1	..	1
European Foreign Countries—						
Austria-Hungary	..	..	..	1	..	1
Germany	1	..	1	6	..	6
France	..	..	..	1	..	1
Denmark	..	..	..	..	1	1
Norway	..	..	..	1	..	1
Russia	..	..	..	2	2	4
Spain	..	..	..	1	..	1
Portugal	..	..	..	1	..	1
Switzerland	..	..	..	1	1	2
Italy	..	..	..	5	1	6
Greece	1	..	1	2	..	2
Other European Countries	..	..	..	9	..	9
Other Foreign Countries—						
China	1	1	2	11	2	13
Japan	..	..	..	5	..	5
United States of Ameriac	..	..	..	2	1	3
Polynesia	..	..	..	2	1	3
At Sea	..	..	..	..	..	..
Unknown	1	..	1	6	2	8
Totals	28	9	37	369	143	512

Table X.—Ipswich.

Forms of Mental Diseases in the Patients Transferred to Ipswich from 1st July, 1935, to 30th June, 1936.

Form of Mental Disorder.	Males.	Females.	Total.
Manic depression insanity	1	..	1
Recurrent mania	1	1	2
Simple melancholia	1	1	2
Confusional insanity	1	..	1
Senility	1	..	1
Schizophrenia	4	3	7
Paraphrenia	5	2	7
Senile dementia	3	..	3
Epilepsy	3	..	3
Congenital (with epilepsy)	2	1	3
Congenital (without epilepsy)	6	1	7
Totals	28	9	37

Table XI.—Ipswich.

Bodily Health and Condition of Patients Transferred from 1st July, 1935, to 30th June, 1936.

Bodily Condition.	Males.	Females.	Total.
In apparently good health and condition	23	9	32
In indifferent health and reduced condition	4	..	4
In bad health and exhausted condition	1	..	1
Totals	28	9	37

Table XII.—Ipswich.

Previous Occupations of Patients Admitted from 1st July, 1935, to 30th June, 1936.

Occupation—Males.	Number.	Occupation—Females.	Number.
Ambulance bearer	1	Domestic duties	5
Diver	1	Music teacher	1
Labourer	4	Clerk	1
Storeman	2	Nil	2
Farmer	7		
Mission boy	1		
Pensioner	1		
Station hand	1		
Fruit packer	1		
Blade shearer	1		
Gardener	1		
Painter	1		
Nil	6		
Total	28	Total	9

Table XIII.—Ipswich.

Districts whence Patients were Received at the Hospital from 1st July, 1935, to 30th June, 1936.

Districts.	Males.	Females.	Total.
Northern and North-Western	8	2	10
Central	3	3	6
Southern	17	4	21
Totals	28	9	37

Table XIV.—Ipswich.

Articles made in Workroom from 1st July, 1935, to 30th June, 1936

Articles.	Number.	Articles.	Number.
Sheets, calico	1,599	Quilts	98
Pillow slips	656	Pillow shams	120
Pillow cases	52	Bed ticks	154
Sheets, waterproof	115	Mosquito nets	128
Shirts, assorted	2,153	Pyjama coats	181
Pyjama trousers, pairs	169	Trousers, pairs	120
Jackets	22	Dresses, assorted	698
Petticoats, assorted	220	Vests, assorted	303
Night gowns, assorted	214	Shrouds	27
Table cloths	127	Towels	1,387
Blinds	8	Money bag	1
Capes	2	Tea bags	6
Shifts	90	Pudding cloths	10
Dusters	6	Aprons	11
Locker covers	20	Feeders	8
Palm stand covers	12	Box cover	1
Dressing Gowns	7	Combinations, pairs	127
Covers (hospital theatre)	6	Drawers, pairs	143
Uniforms—		Uniforms—	
Aprons	255	Caps	147
Collars	261	Dresses, pique	16
Dresses, blue zephyr	175	Dresses, pink zephyr	16
Hats, trimmed	46		

IPSWICH HOSPITAL FOR INSANE
BLOCK PLAN
- REVISED MAY 1936 -
SCALE OF FEET
20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300
REFERENCE
FOUL DRAINS SHOWN
RAIN WATER
WATER SUPPLY
PROPOSED FOUL DRAINS
BLUE = UP TO 1909
RED = ADDITIONS & ALTERATIONS 1909 TO 1936.
VEGETABLE
GARDEN
SEPTIC TANK
MALE ADMISSION WARD
MALE WARD No 2
BATH.
BATH.
SUNK FENCE
TANKS.
CARPENTER
PLUMB
SHED
HIGH LEVEL TANK
SHED
SHED
BATH ROOM
DORMITORY
DORMITORY
WARD 1
DORMITORY
DINING ROOM
DORMY DINING
TENNIS COURT.
BUSH HOUSE.
HOSPITAL WARD
BOILER ROOM
ENGINE ROOM
LAUNDRY
WORKSHOP
KITCHEN
BAKERY
STORE
STORE
RECREATION HALL
NURSES QRS
ADMINISTRATION
MAIN DRIVE
SUNK FENCE.
SUNK FENCE
FEMALE WARD No 1
ENGINE HOUSE
PUMPING STATION
RESERVOIR
FEMALE ADMISSION WARD
FEMALE ADMISSION WARD
CHILDRENS WARD
CHIEF ATTENDANTS QUARTERS.
ENGINEERS QUARTERS
STEWARDS QUARTERS
FENCE
FENCE
FENCE
FENCE
SEPTIC TANK
RESIDENCE MEDICAL SUPERINTENDENT
TO STEWARDS QUARTERS 3 CHAINS 47 FEET FROM A. (SEE INSET.)

TOWNSVILLE RECEPTION HOUSE.

—	Males.	Females.	Total.
On books on 1st July, 1935	1	1	2
Admitted and readmitted during the twelve months	36	20	56
Total on books and under treatment during twelve months	37	21	58

	M.	F.	T.
Discharged recovered ..	9	3	12
Transferred to Goodna ..	24	17	41
Died	..	..	..

Total discharged, transferred, and died..	33	20	53
Remaining on books on 30th June, 1936 ..	4	1	5
Average number daily resident during the twelve months	4	1	5

During the past twelve months ending on 30th June, 1936, the admissions, including readmissions, numbered 36 males, 20 females, total 56, as compared with 50 males, 21 females, total 71, during the previous twelve months ending on 30th June, 1935, showing a decrease of 14 males, 1 female, total 15 admissions for the year ending on 30th June, 1936.

The following table shows the admissions, including readmissions, into the Townsville Reception House, for each of the past twenty-seven and a-half years:—

Year.	Males.	Females.	Total.
1909	62	19	81
1910	60	14	74
1911	66	24	90
1912	75	19	94
1913	78	26	104
1914	79	23	102
1915	59	26	85
1916	87	19	106
1917	83	26	109
1918	55	20	75
1919	74	19	93
1920	72	17	89
1921	59	26	85
1922	60	33	93
1923	59	30	89
1924	73	24	97
1925	79	23	102
1926–27*	120	21	141
1927–28	65	18	83
1928–29	55	16	71
1929–30	53	27	80
1930–31	52	18	70
1931–32	56	23	79
1932–33	38	19	57
1933–34	52	26	78
1934–35	50	21	71
1935–36	36	20	56
Total for past 27½ years	1,757	597	2,354

* This period is for 18 months.

The annual average number of patients admitted for the past twenty-seven and a-half years is 85·60. It will be seen by the foregoing table that the number admitted during the past year is considerably below the average admissions on the male side.

The following table gives the numbers of patients that have been transferred each year for the past twenty-seven and a-half years from this reception house to Goodna Mental Hospital, together with the total numbers of transfers for the whole period:—

Year.	Males.	Females.	Total.
1909	58	14	72
1910	50	11	61
1911	50	19	69
1912	58	14	72
1913	62	23	85
1914	62	14	76
1915	45	19	64
1916	71	15	86
1917	58	24	82
1918	43	18	61
1919	49	14	63
1920	44	11	55
1921	50	25	75
1922	52	27	79
1923	43	21	64
1924	64	21	85
1925	64	18	82
1926–27*	94	16	110
1927–28	39	13	52
1928–29	41	15	56
1929–30	34	23	57
1930–31	41	13	54
1931–32	49	11	60
1932–33	30	11	41
1933–34	33	22	55
1934–35	48	17	65
1935–36	24	17	41
Total for past 27½ years	1,356	466	1,822

* This period is for 18 months.

Recoveries.

There were 9 males, 3 females, total 12, discharged recovered from the Townsville Reception House during the twelve months ending 30th June, 1936, the recovery rate during this period being males 25·00 per cent., females 15·00 per cent., total 21·42 per cent., as compared with 11 males, 5 females, total 16, or males 22·00 per cent., females 28·57 per cent., total 22·53 per cent., discharged recovered during the previous twelve months ending on 30th June, 1935.

The total number of patients under treatment for the past twelve months was 37 males, 21 females, total 58, as compared with 60 males, 23 females, total 83, for the previous twelve months ending 30th June, 1935.

Deaths.

There were no deaths in the reception house during the past twelve months.

Escapes and Accidents.

No patient escaped during the past twelve months.

No serious accident or injury happened to any patient in the reception house during the past twelve months.

Expenditure Table.

(*Average number daily resident during the twelve months*, 5.)

	£	s.	d.
Total expenditure	1,905	5	1
Maintenance collected by Curator	11	2	6
Net expenditure	1,894	2	7
Gross cost per patient for twelve months ..	381	1	0
Net cost per patient for twelve months ..	378	16	6
Gross cost per patient per week	7	6	6
Net cost per patient per week	7	5	8

GENERAL REPORT.

Admissions.

During the twelve months ending on 30th June, 1936, 342 males, 241 females, total 583 patients, were admitted into the Mental Hospitals, including the Townsville Reception House, of whom 63 males, 46 females, total 109, were readmissions, as compared with 333 males, 191 females, total 524, admitted for the first time during the previous twelve months ending on 30th June, 1935, together with 49 males, 65 females, total 114 patients who were readmissions during the lastmentioned period, showing a decrease of 40 males, a decrease of 15 females, making a total decrease of 55 admissions and readmissions for the year ending 30th June, 1936, as compared with the previous twelve months ending 30th June, 1935.

Discharged Recovered.

There were 177 males, 126 females, total 303 patients discharged recovered from the three Mental Hospitals and the Townsville Reception House during the twelve months ending on 30th June, 1936. The recovery rate for this period was—Males, 51·75 per cent., females, 52·28 per cent., total 51·97 per cent., as compared with 154 males, 114 females, total 268, discharged recovered, and a recovery rate of males 40·31 per cent., females 44·53 per cent., total 42·00 per cent., for the previous twelve months ending on 30th June, 1935.

Deaths.

During the twelve months ending on 30th June, 1936, there were 164 males, 82 females, total 246 deaths, giving a death rate on the average number daily resident in the three Mental Hospitals and the Townsville Reception House as follows:—Males, 8·35 per cent.; females, 6·07 per cent.; total, 7·42 per cent., as compared with 166 males, 79 females, total 245 deaths, with a death rate of 8·60 per cent. males, 6·05 per cent. females, total 7·57 per cent., for the previous twelve months ending on 30th June, 1935.

Certified Insane.

The numbers of patients certified insane and under treatment during the twelve months ending on 30th June, 1936, were 2,300 males, 1,604 females, total 3,904, as compared with the previous twelve months ending on 30th June, 1935, when the numbers were 2,290 males, 1,562 females, total 3,852. These figures show an increase of 10 males, 42 females, total 52 patients under treatment during the past year. They do not include those cases which were admitted into the mental ward of the Brisbane Hospital, and were treated and discharged from there without certification. Those remaining as certified insane on the books of the three Mental Hospitals and the Townsville Reception House on 30th June, 1936, numbered 1,941 males, 1,385 females, total 3,326; and of these, though still certified as insane, 26 males, 28 females, total 54, were absent on leave in the care of their relatives or friends. There were, therefore, 1,915 males, 1,357 females, total 3,272 patients in residence at the above institutions on 30th June, 1936, as compared with the numbers in residence at the above institutions at the end of June, 1935—viz., 1,936 males, 1,313 females, total 3,249—the difference showing a decrease of 21 males, an increase of 44 females, total an increase of 23 patients in residence at the three Mental Hospitals and the Townsville Reception House on 30th June, 1936. The daily average resident number of patients were—Males, 1,963; females, 1,349; total, 3,312.

Deportees.

Those patients who have been admitted to a mental hospital within three years of their arrival in Australia are thereby rendered liable to be deported to the respective countries whence they came.

The following Table I. shows the number of patients, and the mental hospitals to which they were admitted, who were deported during the past twelve months ending 30th June, 1936, and Table II. shows the number of patients who have been deported since 1925.

Table I.

Mental Hospital.	Males.	Females.	Total.
Goodna	1	..	1
Toowoomba	..	..	..
Ipswich	..	..	..
Total deportees	1	..	1

Table II.

Goodna	48	6	54
Toowoomba	6	..	6
Ipswich	2	..	2
Total deportees	56	6	62

The following table shows the numbers of male and female patients who, whilst inmates in the Mental Hospitals of the State, were divorced under the Act to Amend the Matrimonial Causes Act proclaimed on the 6th February, 1923:—

—	Males.	Females.	Total.
At Goodna	3	19	22
At Ipswich	6	4	10
At Willowburn	..	6	6
Totals	9	29	38

General Paralysis of the Insane.

The following table shows the number of patients suffering from general paralysis of the insane in the three Mental Hospitals of this State on 1st July, 1935, those who were admitted, discharged, and died during the Twelve Months ending 30th June, 1936, together with the percentage to the total number under treatment during this period, and of those remaining to the total number of patients remaining on 30th June, 1936:—

—	Males.	Females.	Total.
Remaining on 1st July, 1935	24	1	25
Admitted during Twelve Months ending 30th June, 1936	13	1	14
Total under treatment during Twelve Months	37	2	39
Discharged during Twelve Months	2	1	3
Died during Twelve Months	10	1	11
Remaining on 30th June, 1936	25	..	25
Percentage of general paralytics admitted to total number of patients admitted	3·93	0·42	2·46
Percentage of total general paralytics under treatment to total number of patients under treatment during Twelve Months	1·60	0·12	0·99
Percentage of general paralytics remaining to patients remaining on books on 30th June, 1936	1·28	..	0·75

Epileptic Patients.

The following table shows the number of epileptic patients in residence in all the Mental Hospitals of this State on 1st July, 1935; those admitted, discharged, and died during the Twelve Months ending 30th June, 1936; and those remaining at the end of this period; together with the percentage of the total number of epileptic patients under treatment to the total number of patients under treatment, and of the epileptic patients remaining to the total number remaining:—

—	M.	F.	T.	Males.	Females.	Total.
Remaining on 1st July, 1935				146	121	267
Admitted during Twelve Months ending 30th June, 1936				24	18	42
Total number under treatment during Twelve Months				170	139	309
Discharged during Twelve Months	6	1	7			
Died during Twelve Months	8	6	14			
Total discharged and died during Twelve Months				14	7	21
Remaining on 30th June, 1936				156	132	288
Percentage of total of epileptics under treatment to total number of patients under treatment during Twelve Months				7·39	8·66	7·19
Percentage of epileptics remaining to patients remaining on books on 30th June, 1936				8·03	9·53	8·65

The following table gives the males, females, and total number of persons certified as insane in the State of Queensland from the year 1874 to 1935 inclusive, and shows the proportion of the insane of each sex, separately and together, per 1,000 of the population of this State:—

Year.	Number of insane persons in Queensland.			Proportion of insane per 1,000 of population.			Year.	Number of insane persons in Queensland.			Proportion of insane per 1,000 of population.		
	Males.	Females.	Total.	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.
1874 ..	187	113	300	1·90	1·72	1·83	1905 ..	1,172	766	1,938	4·03	3·22	3·65
1875 ..	214	125	339	1·92	1·78	1·87	1906 ..	1,240	789	2,029	4·23	3·25	3·79
1876 ..	244	145	389	2·14	1·98	2·07	1907 ..	1,273	796	2,069	4·27	3·20	3·95
1877 ..	254	163	417	2·03	2·08	2·04	1908 ..	1,354	830	2,184	4·45	3·26	3·93
1878 ..	279	180	459	2·18	2·17	2·18	1909 ..	1,383	844	2,227	4·38	3·20	3·95
1879 ..	304	195	499	2·32	2·24	2·29	1910 ..	1,402	856	2,258	4·30	3·13	3·76
1880 ..	326	212	538	2·58	2·38	2·50	1911 ..	1,423	860	2,283	4·21	3·02	3·66
1881 ..	342	241	583	2·57	2·56	2·56	1912 ..	1,454	868	2,322	4·22	2·97	3·65
1882 ..	377	245	622	2·58	2·38	2·50	1913 ..	1,472	898	2,370	4·12	2·95	3·58
1883 ..	413	266	679	2·42	2·26	2·36	1914 ..	1,530	918	2,448	4·10	2·92	3·58
1884 ..	427	288	715	2·34	2·25	2·30	1915 ..	1,547	894	2,441	4·28	2·80	3·58
1885 ..	480	304	784	2·52	2·29	2·43	1916 ..	1,616	901	2,517	4·53	2·77	3·69
1886 ..	505	306	811	2·51	2·16	2·36	1917 ..	1,645	945	2,590	4·67	2·80	3·76
1887 ..	554	320	874	2·58	2·09	2·38	1918 ..	1,676	948	2,624	4·74	2·77	3·77
1888 ..	575	350	925	2·55	2·16	2·38	1919 ..	1,738	981	2,719	4·59	2·83	3·75
1889 ..	612	379	991	2·59	2·21	2·43	1920 ..	1,772	992	2,764	4·61	2·79	3·74
1890 ..	684	398	1,082	3·00	2·31	2·71	1921 ..	1,750	1,008	2,758	4·31	2·77	3·58
1891 ..	760	431	1,191	3·26	2·42	2·90	1922 ..	1,787	1,059	2,846	4·29	2·83	3·60
1892 ..	797	439	1,236	3·34	2·34	3·01	1923 ..	1,803	1,074	2,877	4·21	2·80	3·54
1893 ..	829	461	1,290	3·40	2·44	2·98	1924 ..	1,814	1,088	2,902	4·12	2·75	3·47
1894 ..	850	490	1,340	3·38	2·52	3·01	1925 ..	1,867	1,105	2,972	4·11	2·72	3·45
1895 ..	875	502	1·377	3·30	2·49	2·99	1926 ..	1,854	1,112	2,966	3·98	2·67	3·36
1896 ..	938	524	1,462	3·54	2·54	3·09	1927 ..	1,878	1,160	3,038	3·95	2·73	3·38
1897 ..	979	528	1,507	3·60	2·47	3·12	1928 ..	1,914	1,167	3,081	3·94	2·75	3 36
1898 ..	1,018	550	1,568	3·63	2·51	3·14	1929 ..	1,916	1,210	3,126	3·89	2·76	3·36
1899 ..	1,068	595	1,663	3·69	2·64	3·24	1930 ..	1,938	1,208	3,146	3·85	2·71	3·31
1900 ..	1,098	621	1,719	3·99	2·83	3·47	1931 ..	1,988	1,249	3,237	3·89	2·75	3·35
1901 ..	1,091	656	1,747	3·87	2·92	3·45	1932 ..	1,973	1,265	3,238	3·81	2·76	3·32
1902 ..	1,118	690	1,808	3·94	3·03	3·53	1933 ..	1,954	1,328	3,282	3·93	2·94	3·46
1903 ..	1,132	713	1,845	3·96	3·09	3·57	1934 ..	1,978	1,362	3,340	3·90	2·94	3·44
1904 ..	1,147	731	1,878	3·98	2·57	3·60	1935 ..	2,000	1,404	3,404	3·93	3·03	3·50

The following figures show the population of the various States of Australasia at the end of 1935, the proportion of those certified insane per 1,000, and the proportion of admissions during the year per 10,000 of the population :—

State.	Population on 31st December, 1935.			Proportion of insane per 1,000 of population.			Proportion of admissions per 10,000 of population.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Queensland	508,383	462,340	970,723	3·93	3·03	3·50	7·06	5·25	6·20
New South Wales ..	1,344,339	1,313,327	2,657,666	4·29	3·87	4·08	6·74	6·50	6·59
Victoria	911,757	931,342	1,843,099	3·69	3·96	3·83	4·66	5·41	5·04
South Australia	293,650	292,793	586,443	2·87	2·45	2·68	4·39	4·44	4·42
Western Australia ..	236,998	209,742	446,740	3·84	2·52	3·22	5·27	4·24	4·79
Tasmania	117,931	115,101	233,032	2·78	2·71	2·75	4·57	3·47	4·03
New Zealand	758,846	733,440	1,492,286	5·54	4·58	5·07	7·34	6·79	7·07

Showing the Ratio of Certified Mental Defectives to the Population.

Year.	Ratio per 1,000 of Total Insane to the Population (excluding Northern Territory).																				
	England.			Western Australia.			South Australia.			Victoria .			New South Wales.			Queensland.			Tasmania.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1909 ..	3·45	3·74	3·60	3·60	1·75	2·80	2·66	2·32	2·50	4·03	3·97	4·01	3·97	3·14	3·58	4·38	3·20	3·84	..	..	..
1910 ..	3·46	3·74	3·61	3·37	1·87	2·74	2·53	2·29	2·42	4·03	4·08	4·05	4·04	3·17	3·64	4·30	3·13	3·76	..	..	..
1911 ..	3·49	3·78	3·64	3·54	1·94	2·85	2·85	2·27	2·59	4·03	4·10	4·07	4·17	3·08	3·65	4·22	3·03	3·68	..	..	..
1912 ..	3·51	3·89	3·75	3·63	1·84	2·86	2·81	2·21	2·51	4·03	4·09	4·06	4·13	3·13	3·65	4·22	2·96	3·64	..	..	..
1913 ..	..	..	..	3·74	1·90	2·94	2·78	2·14	2·46	4·03	4·09	4·06	4·08	3·15	3·64	4·12	2·95	3·59	..	..	..
1914 ..	..	..	..	3·87	1·96	3·03	2·71	2·18	2·45	..	..	..	4·23	3·18	3·72	4·19	2·94	3·61	..	..	..
1915 ..	..	..	..	4·20	1·97	3·17	2·99	2·21	2·59	4·18	4·08	4·13	4·38	3·19	3·79	4·28	2·80	3·58	..	..	..
1916 ..	..	..	..	..	..	3·38	3·17	2·25	2·68	4·34	4·07	4·20	4·67	3·23	3·94	4·53	2·77	3·69	..	..	..
1917 ..	..	..	..	4·74	2·08	3·41	3·21	2·26	2·70	4·33	4·06	4·19	4·67	3·21	3·93	4·67	2·80	3·76	..	..	..
1918 ..	..	..	..	4·88	2·20	3·58	3·10	2·14	2·58	4·31	4·05	4·19	4·62	3·30	3·95	4·74	2·77	3·77	..	..	..
1919 ..	..	..	..	4·49	2·27	3·38	2·97	2·15	2·53	3·87	4·06	3·96	4·32	3·27	3·80	4·59	2·83	3·75	..	..	..
1920 ..	..	..	..	4·57	2·29	3·51	2·68	2·17	2·43	3·85	3·94	3·89	4·33	3·34	3·84	4·61	2·79	3·74	..	..	..
1921 ..	2·96	3·50	3·24	4·23	2·16	3·26	2·60	2·14	2·37	3·77	3·88	3·83	4·13	3·33	3·74	4·31	2·77	3·58	..	..	..
1922 ..	3·01	3·54	3·29	4·78	1·84	3·20	2·60	2·09	2·35	3·72	3·95	3·83	4·00	3·23	3·62	4·29	2·83	3·60	..	..	..
1923 ..	3·08	3·62	3·36	3·99	2·09	3·11	2·54	2·09	2·32	3·66	3·87	3·77	3·92	3·33	3·63	4·21	2·80	3·54	..	..	..
1924 ..	3·10	3·64	3·38	3·66	1·94	2·80	2·45	2·03	2·24	3·57	3·90	3·74	3·93	3·35	3·65	4·12	2·75	3·47	2·77	2·86	2·81
1925 ..	3·14	3·69	3·43	3·69	2·05	2·84	2·5	2·11	2·31	3·57	3·89	3·73	3·89	3·34	3·62	4·11	2·72	3·45	2·83	2·81	2·82
1926 ..	3·19	3·74	3·48	3·83	2·21	3·08	2·38	2·14	2·26	3·61	3·90	3·75	3·93	3·33	3·64	3·98	2·67	3·36	2·93	2·85	2·89
1927 ..	3·22	3·76	3·50	3·77	2·18	3·04	2·41	2·11	2·27	3·54	3·87	3·70	3·87	3·28	3·58	3·95	2·73	3·38	2·85	2·81	2·38
1928 ..	3·28	3·84	3·57	3·63	2·19	2·98	2·48	2·16	2·33	3·61	3·86	3·74	4·01	3·48	3·75	3·94	2·75	3·36	2·88	2·84	2·85
1929 ..	3·31	3·85	3·60	3·74	2·12	3·00	2·53	2·18	2·36	3·61	3·83	3·72	4·04	3·42	3·74	3·89	2·76	3·36	2·96	2·81	2·88
1930 ..	3·34	3·89	3·63	3·79	2·17	3·04	2·57	2·23	2·41	3·66	3·88	3·77	4·16	3·52	3·84	3·85	2·71	3·31	2·91	2·83	2·87
1931 ..	3·38	3·94	3·67	3·75	2·19	3·02	2·56	2·19	2·38	3·66	3·88	3·77	4·24	3·58	3·91	3·89	2·75	3·35	2·91	2·78	2·94
1932 ..	3·32	3·87	3·55	3·79	2·19	3·11	2·53	2·26	2·40	3·69	3·85	3·77	4·22	3·60	3·91	3·81	2·76	3·32	3·07	2·83	2·95
1933 ..	3·25	3·80	3·53	3·72	2·23	3·02	2·68	2·35	2·51	3·66	3·89	3·78	4·19	3·67	3·94	3·93	2·94	3·46	2·91	2·76	2·84
1934 ..	3·47	4·02	3·76	3·73	2·30	3·06	2·80	2·39	2·60	3·69	3·93	3·81	4·27	3·75	4·01	3·90	2·94	3·44	2·81	2·76	2·79
1935 ..	..	..	..	3·84	2·52	3·22	2·87	2·48	2·68	3·69	3·96	3·83	4·29	3·87	4·08	3·93	3·03	3·50	2·78	2·71	2 75

The following table shows the numbers of first admissions, readmissions, and total admissions for each of the Australian States and New Zealand for the last year, together with the percentages of readmissions to total admissions as well as the percentages of recoveries to total admissions.

State.	First Admissions.			Readmissions.			Total Admissions.			Percentage of Readmissions to Total Admissions.			Percentage of Recoveries to Total Admissions.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Queensland	304	176	480	55	67	122	359	243	602	15·32	27·87	20·26	46·79	51·44	48·67
New South Wales	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Victoria	383	440	823	42	56	98	425	496	921	9·88	11·29	10·64	18·35	25·00	21·72
South Australia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Western Australia	119	79	198	6	10	16	125	89	214	4·8	11·24	7·47	7·20	10·11	8·41
Tasmania	40	28	68	14	12	26	54	40	94	25·92	30·00	27·65	53·70	70·00	60·63
New Zealand	490	405	895	65	91	156	555	496	1,051	11·71	18·34	14·84	20·63	27·09	23·67

The following table shows the numbers of the nursing staffs who have obtained the State Mental Nursing Certificate by examination at each of the three Mental Hospitals during the past year and since the inauguration of the examinations in 1912, and the numbers of certificated nurses on the staffs of the Mental Hospitals and the Townsville Reception House:—

State Registered Mental Nurses Certificated by Examination.	Mental Hospital.									Townsville Reception House		
	Goodna.			Toowoomba.			Ipswich.					
	Males.	Females.	Total.	Males.	Females	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Certificated during 1935-36 ..	4	17	21	5	3	8	..	3	3	..	..	..
Certificated prior to 1 July, 1935	155	147	302	65	114	179	69	59	128	..	..	..
Transferred from Goodna ..	..	..	..	8	8	16	11	8	19	1	..	1
Transferred from Toowoomba	7	4	11	..	..	..	2	9	11	..	..	..
Transferred from Ipswich ..	11	5	16	1	6	7	..	..	..	..	1	1
	177	173	350	79	131	210	82	79	161	1	1	2
Left Government Lunacy Service	26	87	113	8	70	78	14	37	51	..	..	..
Transferred to Goodna ..	..	..	..	7	4	11	11	5	16	..	..	..
Transferred to Toowoomba ..	8	8	16	..	..	..	1	6	7	..	..	..
Transferred to Ipswich ..	11	8	19	2	9	11	..	..	..	..	..	..
Transferred to Townsville Reception House	1	..	1	..	..	..	..	1	1	..	..	..
Died	15	5	20	7	..	7	1	..	1	1	..	1
Remaining	116	65	181	55	48	103	55	30	85	..	1	1
Joined Government Lunacy Service holding a mental nursing certificate by examination	7	9	16	..	..	..	..	3	3	..	..	..
Total remaining mental nurses certificated by examination and State registered ..	123	74	197	55	48	103	55	33	88	..	1	1

The nursing staffs of the three Mental Hospitals and the Townsville Reception House are shown below, together with the percentage of the staffs holding the mental nursing certificate by examination:—

Mental Hospital or Reception House.	Nursing Staffs.			Percentage of Nursing Staffs Certificated by Examination.		
	Males.	Females.	Total.	Males.	Females.	Total.
Goodna	162	95	257	75·92	77·89	76·61
Toowoomba	73	83	156	75·34	57·83	66·02
Ipswich	60	48	108	91·66	68·75	81·48
Townsville	3	4	7	..	25·00	14·28

In accordance with the arrangement made between the Insanity Service and the General Hospitals at Brisbane, Toowoomba, and Ipswich, for an interchange of trained mental nurses to undergo general nursing training, and *vice versa*, there are at present 7 mental nurses from the Goodna Mental Hospital, 5 from Toowoomba Mental Hospital, and 3 from Ipswich Mental Hospital undergoing training in general hospital nursing, while the numbers of general trained nurses undergoing mental nursing training are 19 at Goodna, 2 at Toowoomba, and 10 at Ipswich Mental Hospital.

Twenty-seven years ago no nurse or attendant, not even the matron or chief attendant, was trained in any branch of nursing.

The following table shows the numbers of male and female nurses on the staffs of the Mental Hospitals, at the end of the past year, who are registered in one or more sections of nursing :—

Nursing Certificate Held.	Mental Hospital.								
	Goodna.			Toowoomba.			Ipswich.		
	Males.	Females.	Total.	Males	Females.	Total.	Males.	Females.	Total.
Mental, general, and midwifery	..	8	8	..	4	4	..	3	3
Mental and general	..	14	14	..	7	7	..	10	10
Mental and midwifery	..	1	1	..	..	..	..	..	..
Mental	123	43	166	55	32	87	55	16	71
General	..	15	15	..	1	1	..	9	9
General, mental, midwifery, and child welfare	..	1	1	..	..	..	..	1	1
General and midwifery	..	4	4	..	1	1	..	..	..
Midwifery, child welfare, and general	..	..	..	..	..	..	..	1	1
Midwifery	..	..	..	..	1	1	..	..	..
Mental, midwifery, and child welfare	..	..	..	..	..	..	..	..	..
Mental, undergoing general training	..	7	7	..	4	4	..	3	3
Mental, midwifery, child welfare, and undergoing general training	..	..	..	..	1	1	..	..	..
Nil	39	2	41	18	32	50	5	5	10
Totals	162	95	257	73	83	156	60	48	108

The following table gives the proportions of the total nursing staffs of each of the three Mental Hospitals, who, at the end of the past year, were trained and State registered in either mental or general hospital nursing :—

—	Mental Hospital.					
	Goodna.		Ipswich.		Toowoomba.	
	Males.	Females.	Males.	Females.	Males.	Females.
Mental certificated nurses	75·92	77·89	91·66	68·75	75·34	57·53
General hospital certificated nurses	..	44·21	..	50·00	..	15·66

Medical Staffs.

The Medical Staffs in the Mental Hospitals in Queensland are very much smaller compared to the average number of patients in residence than in New South Wales or Victoria, or any of the Mental Hospitals in England.

At Goodna there are three Assistant Medical Officers, but the services of the third are on a part-time basis, as that officer has the right of outside practice, a matter taken into account when deciding the salary of the post.

Mont Park, in Victoria, the nearest approach in size to Goodna, though smaller, has a daily average resident population of 1,377, compared with 1,660 at Goodna, and a smaller admission rate—viz., 318, compared with 532 at Goodna in 1934-35, and 482 for the year 1935-36. There are six Assistant Medical Officers compared with Goodna's two and a-half.

Sunbury, in Victoria, has two Assistant Medical Officers with a daily average of 1,118, and an admission rate of 119 patients.

Callan Park, with a daily average of 1,310 and 422 admissions; and Gladesville with a daily average of 1,130 and 371 admissions, both have four full-time Assistant Medical Officers.

Orange (New South Wales), has two Assistant Medical Officers with a daily average of 1,100 and an admission rate of 83 patients.

In England the proportion of Assistant Medical Officers to the average number of patients is still better, as the following table will show:—

Mental Hospital.	Number of Patients.	Number of Assistant Medical Officers.
Whittingham	2,955	7
Winwick	2,198	6
Leeds	1,800	5
Wakefield	2,400	7
Springfield	1,800	6
Exminster	1,320	4
Basingstoke	1,450	4
Fishponds	1,040	4
Wotton	1,320	4
Fareham	1,070	2
Portsmouth	1,200	2
Bodmin	1,200	2

Innumerable other Mental Hospitals could be quoted showing a similar proportion of Assistant Medical Officers to the patients.

Toowoomba also should have a second Assistant Medical Officer similar to those given above.

I beg to stress the fact that the Mental Hospitals are understaffed as regards Medical Officers, and should be brought into alignment in this respect with similar Mental Hospitals elsewhere.

The engagement of a Locum Tenens for forty-two weeks per year will then not be necessary and this expense would be used towards the salaries for the two extra Assistant Medical Officers required.

DEPARTMENT OF PUBLIC WORKS.

Statement showing Expenditure on the Undermentioned Institutions from 1st July, 1935, to 30th June, 1936.

	£ s. d.	£ s. d.
Goodna Mental Hospital.		
Erection of three new Wards (balance)	8,181 2 5	
Repairs and reconditioning metal surface bridge at entrance to Hospital (balance)	205 6 7	
Supply of furniture—Nurses' Quarters	10 6 2	
Furniture for Male Wards, 6 and 7	1,434 11 2	
Furniture for new Male Ward 8	684 5 5	
Additional furniture for three new Male Wards	110 13 2	
Supply of iron bedsteads	72 0 4	
Aerolax blinds to Nurses' Quarters	10 3 1	
Supply of wire panels—Sewing Room	10 12 9	
"K" wire fencing—New Ward 8	181 11 5	
Grilles to windows—Male Wards, 9 and 12	34 14 8	
Painting verandah roofs—Male Wards 6, 7, and 8	17 6 8	
Sanding and polishing floors—Male Wards 6, 7, and 8	189 4 1	
Painting internally—General Kitchen	113 2 10	
Painting internally—Male Ward 4	314 12 2	
New concrete floor, &c.	225 4 3	
Supply of enamelled stove—Dr. Crowe's residence	12 13 5	
Connecting up Cricket Pavilion W.C's. to Sewerage	33 14 4	
Repairs to plaster ceilings, Male Ward 3	20 8 1	
Repairs to Bakehouse ovens	57 17 8	
Various minor repairs (estimated to cost under £20)	84 14 5	
		12,004 5 1
Ipswich Mental Hospital.		
Supply of chairs	118 13 0	
Removing and re-setting tiles	14 15 8	
Brick chimney to Attendant's Room	43 13 0	
Cement floors to Bathrooms, and W.C., &c., to Nurses' Quarters	183 8 9	
Various minor repairs (estimated to cost under £20)	19 19 11	
		380 10 4
Toowoomba Mental Hospital.		
Erection of two boiler houses, hot water installation, &c., (balance)	1,349 9 2	
Provision of chemical fire extinguishers	31 17 3	
Supply of chairs—Recreation Hall	191 11 6	
Installation of Talkie Apparatus	354 9 5	
Birdproofing	27 1 9	
Supply of furniture (balance)	76 10 11	
Internal and external painting	177 14 9	
Provision of grilles, new tanks and stands, &c.	154 0 8	
Renewal of glass	23 16 0	
Repairs to brick flue	114 7 9	
Repairs to kitchen ranges	34 3 6	
Various minor repairs (estimated to cost under £20)	86 15 9	
Supply of wooden wheelbarrows, &c., (paid for by Department of Health and Home Affairs)	17 19 2	
		2,639 17 7
Townsville Reception House.		
Repainting internally, new louvres, &c.	95 19 1	
Repainting externally, laying drain, and enclosing verandah	116 1 11	
Various minor repairs (estimated to cost under £20)	38 9 0	
		250 10 0
Total expenditure	..	£15,275 3 0

The following is a statement of the expenditure incurred by the Department of Public Works during the past twelve financial years on account of the various Mental Hospitals and the Townsville Reception House :—

Hospital.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	Totals.
	£	£	£	£	£	£	£	£	£	£	£	£	£
Goodna ..	10,176	7,295	8,368	8,782	18,368	5,398	7,628	1,218	10,227	5,599	32,752	12,004	127,815
Toowoomba	1,579	1,676	4,645	3,010	10,484	8,138	3,055	981	9,845	3,629	4,568	2,639	54,249
Ipswich ..	1,155	2,653	2,233	2,773	3,039	2,108	1,334	353	3,767	1,304	344	380	21,443
Townsville (R. House)	93	132	100	21	11	27	188	189	74	164	252	250	1,501
Totals	£13,003	£11,756	£15,346	£14,586	£31,902	£15,671	£12 205	£2,741	£23,913	£10,696	£37,916	£15,273	£205,008

Expenditure Table.

The following table shows the amount spent in the upkeep of the three Mental Hospitals during each of the past twenty-seven and a-half years, together with the total amounts spent during each year and during the whole period :—

Year.	Mental Hospital.									Total Expenditure.		
	Goodna.			Toowoomba.			Ipswich.					
	Average Number Daily Resident.	Expenditure.			Average Number Daily Resident.	Expenditure.			Average Number Daily Resident.	Expenditure.					
		£	s.	d.		£	s.	d.		£	s.	d.	£	s.	d.
1909 ..	1,199	30,809	12	11	737	18,470	14	0	234	4,141	18	7	53,422	5	6
1910 ..	1,270	31,848	2	3	746	18,059	17	8	238	6,629	9	4	56,537	9	3
1911 ..	1,264	37,457	17	5	751	19,932	19	10	238	7,363	18	1	64,754	15	4
1912 ..	1,253	39,969	17	5	755	21,073	0	9	274	9,450	3	3	70,493	1	5
1913 ..	1,303	42,012	14	6	751	21,013	2	7	288	10,609	0	0	73,634	17	1
1914 ..	1,363	47,050	0	9	754	25,366	6	7	290	11,060	12	6	83,476	19	10
1915 ..	1,368	56,239	0	6	751	29,530	2	4	310	14,887	10	0	100,656	12	10
1916 ..	1,399	64,173	16	11	749	30,065	12	1	330	16,371	13	0	110,611	2	0
1917 ..	1,436	63,900	15	7	759	30,708	8	1	430	19,884	2	6	114,493	6	2
1918 ..	1,430	73,797	6	4	772	38,837	16	4	435	28,897	15	11	141,532	18	7
1919 ..	1,350	84,616	5	4	874	49,807	16	0	445	33,177	18	5	167,601	19	9
1920 ..	1,381	98,256	11	7	870	65,544	5	11	449	41,943	1	8	205,743	19	2
1921 ..	1,383	89,660	9	10	911	58,503	9	1	449	37,735	15	5	185,899	14	4
1922 ..	1,424	87,753	8	2	882	51,967	1	8	449	35,887	2	1	175,607	11	11
1923 ..	1,379	86,480	15	8	978	59,049	5	7	446	35,542	17	2	181,072	18	5
1924 ..	1,357	89,355	2	11	1,034	60,478	3	7	446	38,761	1	11	188,594	8	5
1925 ..	1,390	96,906	19	11	1,051	64,757	3	2	449	39,247	2	3	200,911	5	4
1926–27* ..	1,422	151,754	17	10	1,056	105,857	14	3	447	66,715	4	6	324,327	16	7
1927–28 ..	1,462	101,985	5	4	1,039	67,074	0	0	449	43,084	1	3	212,143	6	7
1928–29 ..	1,492	101,522	8	4	1,036	70,831	13	3	452	45,263	15	3	217,617	16	10
1929–30 ..	1,526	104,052	11	10	1,051	70,581	13	6	454	45,582	10	3	220,216	15	7
1930–31 ..	1,535	92,427	10	5	1,072	61,853	12	6	456	38,531	2	1	192,812	5	0
1931–32 ..	1,578	87,033	4	1	1,081	57,667	2	3	457	35,583	14	10	180,284	1	2
1932–33 ..	1,602	85,859	0	7	1,073	56,496	11	6	460	35,125	19	6	177,481	11	7
1933–34 ..	1,625	89,767	8	8	1,078	59,742	2	10	465	37,387	5	5	186,896	16	11
1934–35 ..	1,636	93,480	16	0	1,095	61,920	12	2	497	39,269	9	7	194,670	17	9
1935–36 ..	1,660	98,873	12	7	1,138	64,483	8	1	509	40,869	14	4	204,226	15	0
Total for years	past 27½	£2,127,045	13	8	..	£1,339,673	15	7	..	£819,003	19	1	£4,285,723	8	4

* This period is for 18 months.

The tables relating collectively to all the Mental Hospitals and the Townsville Reception House, for the past twelve months, are attached hereto.

Table I.

SHOWING ADMISSIONS, DISCHARGES, AND DEATHS FOR ALL MENTAL HOSPITALS AND THE TOWNSVILLE RECEPTION HOUSE DURING THE YEAR ENDING 30TH JUNE, 1936.

	Males.	Females.	Total.	Males.	Females.	Total.
On the books of the Hospitals on 1st July, 1935				1,958	1,363	3,321
Admitted for the first time during the year	279	195	474			
Readmitted during the year	63	46	109			
Admitted and readmitted during the year	..	..	..	342	241	583
Total on books and under care during the year				2,300	1,604	3,904
Discharged, died, &c.—						
Recovered	177	126	303			
Relieved	12	9	21			
Not improved	6	2	8			
Died	164	82	246			
Total discharged, died, &c., during the year				359	219	578
Remaining on the books of the Hospitals on 30th June, 1936				1,941	1,385	3,326
Average number daily resident during the year				1,963	1,349	3,312
On leave of absence on 30th June, 1936				26	30	56

Table II.

ADMISSIONS, READMISSIONS, DISCHARGES, AND DEATHS FROM 1ST JANUARY, 1864, TO 30TH JUNE, 1936, FOR ALL MENTAL HOSPITALS AND THE TOWNSVILLE RECEPTION HOUSE.

	Males.	Females.	Total.	Males.	Females.	Total.	Percentage of Discharges. Males.	Females.	Total.
Patients admitted for the first time				11,972	6,833	18,805			
Patients readmitted				1,900	1,595	3,495			
Total number of patients under care				13,872	8,428	22,300			
Discharged, died, &c.—									
Recovered	5,820	3,988	9,808	..	..	..	41·95	47·31	43·98
Relieved	651	383	1,034	..	..	..	4·69	4·54	4·63
Not improved	154	77	231	..	..	..	1·11	0·91	1·03
Not insane	8	..	8	..	..	..	0·05	..	0·03
Died	5,298	2,595	7,893	..	..	..	..	..	..
Total discharged, died, &c...				11,931	7,043	18,974	..	..	..
Remaining on the books of the Hospitals on 30th June, 1936				1,941	1,385	3,326	..	..	..

Table III.

ADMISSIONS, DISCHARGES, AND DEATHS, WITH THE PROPORTIONS OF RECOVERIES AND DEATHS PER CENT., SINCE 1ST JANUARY, 1883, FOR ALL HOSPITALS FOR THE INSANE AND TOWNSVILLE RECEPTION HOUSE.

Year.	Admitted and Readmitted.			Discharged. Recovered.			Discharged. Relieved.			Discharged. Not Improved.			Died.			Remaining at End of Each Year.			Average Number Resident.			Percentage of Recoveries on Admissions			Percentage of Patients Relieved.			Percentage of Deaths on Average Numbers Resident.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1883	93	67	160	32	32	64	1	4	5	...	...	...	23	10	33	413	266	679	391	252	643	5·00	47·76	40·00	4·34	5·84	4·99	5·63	4·00	4·97
1884	103	72	175	52	38	90	2	...	2	...	...	...	35	12	47	427	288	715	420	283	703	50·48	42·78	51·43	1·94	...	1·14	8·33	4·24	6·68
1885	151	70	221	63	29	92	3	8	11	...	...	...	32	17	49	480	304	784	449	297	746	41·72	41·43	41·63	1·99	11·43	4·98	7·12	5·72	6·57
1886	132	73	205	64	47	111	2	2	4	...	...	...	39	22	61	505	306	811	487	302	789	48·48	64·38	54·14	1·51	2·74	1·95	8·01	7·28	7·73
1887	154	80	234	63	46	109	4	2	6	1	...	1	36	19	55	554	320	874	524	312	836	41·00	57·50	46·58	2·60	2·50	2·13	6·87	6·09	6·58
1888	173	87	260	86	36	122	2	2	4	1	...	1	63	19	82	575	350	925	574	334	908	49·77	41·38	46·92	1·15	2·30	1·54	10·97	5·69	9·03
1889	148	101	249	85	48	133	4	4	8	2	1	3	40	19	59	612	379	991	600	367	967	43·92	47·52	45·38	2·70	3·96	3·21	6·66	5·18	6·10
1890	172	89	261	64	47	111	2	3	5	...	...	...	34	20	54	684	398	1,082	671	412	1,083	37·02	52·08	42·05	1·01	3·37	1·09	5·53	5·71	5·59
1891	189	97	286	74	51	125	2	2	4	1	...	1	35	11	46	760	431	1,191	735	422	1,157	39·01	52·05	43·07	1·00	2·00	1·04	4·07	2·06	3·99
1892	173	99	272	72	56	128	4	3	7	2	...	2	56	31	87	797	439	1,236	785	443	1,228	41·06	56·05	47·00	2·03	3·00	2·05	7·01	7·00	7·00
1893	156	99	255	63	49	112	6	2	8	...	...	...	55	26	81	829	461	1,290	809	449	1,258	40·03	49·04	43·09	3·08	2·00	3·01	6·08	5·08	6·04
1894	143	105	248	60	50	110	3	4	7	...	...	...	59	21	80	850	490	1,340	848	469	1,317	41·09	47·06	44 03	·01	3·09	2·08	6·09	4·04	6·00
1895	159	80	239	62	36	98	2	4	6	1	...	1	67	28	95	875	502	1,377	866	498	1,364	39·00	45·00	41·00	1·02	5·00	2·05	7·07	5·06	6·09
1896	173	95	268	49	49	98	6	3	9	...	2	2	53	19	72	938	524	1,462	913	517	1,430	28·03	51·05	36·05	3·04	3·01	3·03	5·08	3·06	5·00
1897	165	85	250	54	48	102	2	4	6	3	1	4	64	28	92	979	528	1,507	963	521	1,484	32·07	56·04	40·08	1·02	4·07	2·04	6·06	5·03	6·02
1898	194	99	293	62	42	104	3	2	5	4	...	4	86	33	119	1,018	550	1,568	995	545	1,540	32·00	42·04	35·05	1·05	2·00	1·07	8·06	6·00	7·07
1899	246	118	364	90	40	130	16	8	24	2	2	4	86	23	109	1,068	595	1,663	1,037	563	1,600	36·58	33·90	35·71	6·50	6·78	6·59	8·2	4·05	6·70
1900	230	117	347	84	44	128	27	9	36	2	2	4	87	36	123	1,098	621	1,719	1,084	603	1,687	36·52	37·60	36·88	11·73	7·69	10·34	8·02	5·97	7·20
1901	193	142	335	90	55	145	33	14	47	1	1	2	76	37	113	1,091	656	1,747	1,086	637	1,723	46·63	38·73	43·28	17·09	9·85	14·03	7·00	5·80	6·54
1902	204	135	339	74	57	131	39	8	47	2	4	6	62	32	94	1,118	690	1,808	1,111	675	1,786	36·27	42·22	38·64	19·11	5·92	13·86	5·58	4·74	5·26
1903	222	115	337	92	43	135	20	11	31	...	1	1	96	37	133	1,132	713	1,845	1,130	697	1,827	41·44	37·4	40·06	9·01	9·5	9·2	8·5	5·31	7·22
1904	186	103	289	75	50	125	30	4	34	4	1	5	64	30	94	1,147	731	1,878	1,143	721	1,864	40·32	48·54	41·56	16·12	3·88	11·76	5·6	4·16	5·00
1905	205	130	335	71	43	114	19	9	28	...	1	1	89	42	131	1,172	706	1,938	1,158	744	1,902	34 63	33·08	34·03	9·27	6·92	8·36	7·69	5·65	6·89
1906	241	120	361	88	45	133	11	11	22	1	1	2	72	40	112	1,240	789	2,029	1,207	787	1,994	36·51	37·50	36·84	4·56	9·17	6·09	5·91	5·09	6·62
1907	219	125	344	87	54	141	15	15	30	1	3	4	83	46	129	1,273	796	2,069	1,247	776	2,023	39·73	43·20	40·99	6·85	12·00	8·72	6·65	5·93	6.32
1908	235	125	360	70	38	108	14	8	22	1	1	2	68	44	112	1,354	308	2,184	1,311	809	2,120	30·00	30·40	30·00	5·99	6·40	6·11	5·1	5·44	5·28
1909	247	122	369	91	50	141	36	16	52	3	1	4	89	40	129	1,383	844	2,227	1,357	816	2,173	36·84	40·98	38·21	14·57	13·11	14·09	6·55	4·90	5·93
1910	259	130	389	113	53	166	12	6	18	4	4	8	109	55	164	1,402	856	2,258	1,400	854	2,254	43·62	40·78	42·67	4·63	4·61	4·62	7·78	6·44	7·27
1911	287	141	428	136	77	213	13	6	19	3	...	3	111	54	165	1,423	860	2,283	1,406	849	2,255	47·38	54·61	49·76	4·53	4·25	4·43	7·89	6·36	7·31
1912	293	152	445	113	83	196	17	6	23	...	3	3	132	52	184	1,454	868	2,322	1,430	852	2,282	38·56	54·60	44·04	5·80	3·94	5·16	9·23	6·10	8·06
1913	282	171	453	138	81	219	7	4	11	1	1	2	118	55	173	1,472	898	2,370	1,462	880	2,342	48·93	47·36	38·34	2·48	2·33	2·42	8·07	6·25	7·38
1914	324	196	520	152	94	246	10	3	13	1	1	2	103	78	181	1,530	918	2,448	1,507	900	2,407	46·91	47·98	47·30	3·08	1·53	2·50	6·83	8·66	7·51
1915	272	157	429	129	85	214	9	7	16	2	1	3	114	88	202	1,547	894	2,441	1,529	900	2,429	47·42	54·14	49·88	3·30	4·45	3·73	7·45	9·77	8·31
1916	301	171	472	116	107	223	6	4	10	5	4	9	105	49	154	1,616	901	2,517	1,581	897	2,478	38·53	62·57	47·24	1·99	2:33	2·11	6·64	5·46	6·21
1917	264	178	442	128	82	210	9	6	15	6	...	6	92	46	138	1,645	945	2,590	1,625	911	2,536	48·48	46·06	47·50	3·40	3·37	3·39	5·66	5·04	5·43
1918	263	177	440	101	103	204	16	5	21	3	1	4	112	65	177	1,676	948	2,624	1,684	953	2,637	38·40	58·19	46·36	6·08	2·81	4·77	6·68	6·85	6·74
1919	304	193	497	101	100	201	13	4	17	...	1	1	138	61	199	1,728	975	2,703	1,711	945	2,656	33·22	51·81	40·44	4·24	2·07	3·42	8·07	6·45	7·49
1920	318	180	498	145	95	240	12	7	19	6	1	7	125	65	190	1,758	987	2,745	1,732	968	2,700	45·59	52·77	48·19	3·77	3·88	3·81	7·21	6·71	7·03
1921	267	187	454	128	93	221	11	6	17	1	2	3	140	65	205	1,745	1,008	2,753	1,750	993	2,743	47·94	49·73	48·67	4·11	3·20	3·74	8·00	6·54	7·47
1922	325	208	533	138	94	232	10	6	16	3	1	4	134	58	192	1,785	1,057	2,842	1,762	993	2,755	42·46	45·16	43·52	3·07	2·88	3·00	7·60	5·84	6·96
1923	315	198	513	167	111	278	10	7	17	5	4	9	120	61	181	1,797	1,072	2,869	1,788	1,015	2,803	53·01	56·06	54·19	3·14	3·53	3 31	6·71	6·00	6·45
1924	307	190	497	145	104	249	8	6	14	3	4	7	134	60	194	1,814	1,088	2,902	1,804	1,033	2,837	47·23	54·73	50·10	2·60	3·15	2·81	7·42	5·80	6·83
1925	299	183	482	114	96	210	12	8	20	4	1	5	120	61	181	1,863	1,105	2,968	1,826	1,064	2,890	38·12	52·45	43·56	4·01	4·37	4·14	6·57	5·73	6·26
1926-27 (18 months)	430	285	715	197	128	325	17	10	27	7	3	10	225	96	321	1,847	1,153	3,000	1,851	1,074	2,925	45·80	44·91	45·59	3·95	3·51	3·77	12·15	8·94	11·21
1927-28 (12 months)	278	188	466	126	107	233	7	4	11	4	2	6	108	91	199	1,880	1,137	3,017	1,851	1,099	2,950	45·32	56·91	50·00	2·51	2·12	2·36	5 83	8·28	6·70
1928-29 (12 months)	529	199	494	132	89	221	22	20	42	6	...	6	138	72	210	1,877	1,155	3,032	1,875	1,105	2,980	44·74	44·72	44·73	7·45	10·05	8 50	7·36	6·51	7·00
1929-30 (12 months)	290	196	486	128	99	227	3	8	11	5	1	6	160	72	232	1,871	1,171	3,042	1,889	1,142	3,031	44·13	50·51	46·70	1·03	4·08	2·06	8·47	6·30	7·65
1930-31 (12 months)	257	190	447	120	82	202	3	5	8	3	2	5	96	70	166	1,906	1,202	3,108	1,902	1.161	3,063	47·08	43·06	45·41	1·17	2·63	1·79	5·05	6·03	5·41
1931-32 (12 months)	314	197	511	131	101	232	6	3	9	6	4	10	141	65	206	1,936	1,226	3,162	1,929	1,187	3,116	41·40	51·26	45·42	1·91	1·52	1·76	7·31	5·47	6·61
1932-33 (12 months)	277	220	497	119	90	209	10	11	21	6	4	10	154	71	225	1,924	1,270	3,194	1,927	1,208	3,135	42·96	40·91	42·05	3·61	5·00	4·22	7·99	5·87	7·14
1933-34 (12 months)	309	250	559	144	105	249	18	11	29	7	3	10	155	96	251	1,909	1,305	3,214	1,914	1,254	3,168	46·60	42·00	44·54	5·82	4·40	5·18	8·09	7 65	7·92
1934-35 (12 months)	382	256	638	154	114	268	9	4	13	3	2	5	166	79	245	1,958	1,363	3,321	1,928	1,305	3,233	40·31	44·53	42·00	2·35	1·56	2·03	8·60	6·05	7·57
1935-36 (12 months)*	342	241	583	177	126	303	12	9	21	6	2	8	164	82	246	1,941	1,385	3,326	1,963	1,349	3,312	51·75	52·28	51·97	3·50	3·73	3·60	8·35	6·07	7·42

A BRIEF HISTORY OF THE QUEENSLAND MENTAL HOSPITALS.

Goodna Mental Hospital.

The Goodna Mental Hospital was first opened in 1864 and was then known as the Woogaroo Lunatic Asylum, being named after a creek which empties into the Brisbane River adjacent to the Institution and the hill which rises above the river in a south-easterly direction.

The name Woogaroo apparently was a corruption of the aboriginal term Wangaroo, which meant "to step over a person lying down." This information has been kindly supplied by Mr. Bleakley.

Locally it is believed that the name Goodna came from an aboriginal name "Coodna Creek," meaning dirty water creek. In the early days the creek between Goodna and Redbank was called by that name, but it is now known as Goodna Creek. The Institution was then built wholly on the southern bank of the Brisbane River. Through Mr. Bleakley, the Protector of Aboriginals, I have also obtained the following information regarding the origin of the name Goodna. It is given on the authority of Mr. Bennett, recently retired from the position of Master to the Toowong School, who is said to be an authority on the aboriginal names and customs of the old Brisbane tribe. Mr. Bennett states that the correct pronunciation would be "Ngoonung" or "Ngoodung" with the "d" given softly. This would readily be received as "Goodna" by the uninitiated. From two other sources, each confirming the other, we have ascertained that the word has three meanings—

(*a*) A gully.

(*b*) The back of the head or nape of the neck.

(*c*) Human evacuation.

Strangely, in the Cooktown dialect an almost similar word, "Goona" (as heard by one of our Northern officers) has the same meaning.

The last of the early wards was pulled down in the year 1916. The first official use of the name Goodna, as applied to this hospital, was in the Annual Report for 1880, compiled by Dr. P. Smith in May, 1881.

Official visits of Governors who have visited Goodna during the past twenty-seven and a-half years since 1909 :—

His Excellency Sir William MacGregor, in 1910.

His Excellency Sir Hamilton Gould Adams officially opened Administrative Block on 6th October, 1917.

His Excellency Sir Matthew Nathan officially paid a visit on 28th November, 1921, and also officially opened the Club House of the Goodna Golf Club, now Gailes Golf Club, on 6th August, 1925.

His Excellency Sir John Goodwin officially opened new Female Ward No. 8 on 24th August, 1931.

His Excellency Sir Leslie Orme Wilson officially opened Male Wards Nos. 6, 7, and 8 on 20th February, 1936, as mentioned elsewhere in this report.

The names of the various Ministers of the Crown under whom this and subsequent Mental Hospitals have been administered are as follows :—

Colonial Secretary.	From—	To—
Hon. Mr. Robert George Wyndham Herbert	10 Dec., 1859	1 Feb., 1866
Hon. Mr. Robert Ramsay MacKenzie	1 Feb., 1866	20 July, 1866
Hon. Mr. George Elphinstone Dalrymple	21 July, 1866	7 Aug., 1866
Hon. Mr. Arthur Macalister	7 Aug., 1866	15 Aug., 1867
Hon. Mr. Arthur Hunter Palmer	15 Aug., 1867	25 Nov., 1868
Hon. Mr. Thomas Blacket Stephens	25 Nov., 1868	28 Jan., 1869
Hon. Mr. Arthur Hodgson	28 Jan., 1869	10 Nov., 1869
Hon. Mr. Charles Lilley	10 Nov., 1869	3 May, 1870
Hon. Mr. Arthur Hunter Palmer	3 May, 1870	8 Jan., 1874
Hon. Mr. Arthur Macalister	8 Jan., 1874	5 June, 1876
Hon. Mr. Robert Muter Stewart	5 June, 1876	15 Mar., 1877
Hon. Mr. John Douglas	7 Nov., 1877	21 July, 1879
Hon. Mr. Robert Muter Stewart	5 June, 1876	15 Mar., 1877
Hon. Mr. William Miles	15 Mar., 1877	7 Nov., 1877
Hon. Mr. Arthur Hunter Palmer	21 Jan., 1879	24 Dec., 1881
Hon. Mr. Thomas McIlwraith	24 Dec., 1881	13 Nov., 1883
Hon. Mr. Samuel Walker Griffith	13 Nov., 1883	1 Apr. 1886
Hon. Mr. Berkeley Basil Moreton	1 Apr., 1886	13 June, 1888
Hon. Mr. Boyd Dunlop Morehead	13 June, 1888	4 Jan., 1890
Hon. Mr. John Murtagh Macrossan	4 Jan., 1890	12 Aug., 1890
Hon. Mr. Horace Tozer	12 Aug., 1890	27 Mar., 1893
Hon. Mr. Horace Tozer	27 Mar., 1893	27 Oct., 1893
Hon. Mr. Horace Tozer	27 Oct., 1893	6 Aug., 1896

Home Secretary.	From—	To—
Hon. Sir Horace Tozer	6 Aug., 1896	2 Mar., 1898
Hon. Mr. James Robert Dickson	2 Mar., 1898	13 Apr., 1898
Hon. Mr. James Robert Dickson	13 Apr., 1898	1 Oct., 1898
Hon. Mr. Justin Fox Greenlaw Foxton	12 Oct., 1898	1 Dec., 1899
Hon. Mr. Henry Turley	1 Dec., 1899	7 Dec., 1899
Hon. Mr. Justin Fox Greenlaw Foxton	7 Dec., 1899	8 Apr., 1903
Hon. Mr. Digby Frank Denham	17 Sept., 1903	..
Hon. Mr. Peter Airey	27 Apr., 1904	3 July, 1907
Hon. Mr. Arthur George Clarence Hawthorne	3 July, 1907	17 Nov., 1907
Hon. Mr. Digby Frank Denham	17 Nov., 1907	18 Feb., 1908
Hon. Mr. Arthur George Clarence Hawthorne	18 Feb., 1908	29 Oct., 1908
Hon. Mr. Joshua Thomas Bell	29 Oct., 1908	29 June, 1909
Hon. Mr. John George Appel	29 June, 1909	26 Feb., 1915
Hon. Mr. Kenneth McDonald Grant	26 Feb., 1915	1 June, 1915
Hon. Mr. David Bowman	1 June, 1915	25 Feb., 1916
Hon. Mr. Thomas Joseph Ryan	10 Mar., 1916	23 Mar., 1916
Hon. Mr. John Huxham	23 Mar., 1916	9 Sept., 1919
Hon. Mr. William McCormack	9 Sept., 1919	2 Sept., 1923
Hon. Mr. James Stopford	2 July, 1923	21 May, 1929
Hon. Mr. James Christian Peterson	21 May, 1929	17 June, 1932
Hon. Mr. Edward Michael Hanlon	17 June, 1932	1935

NOTE.—5th December, 1935, name of Office altered to "Secretary for Health and Home Affairs."

Four wards officially opened by Home Secretaries were as follows:—

The Hon. Mr. J. Huxham, M.L.A., officially opened the Hospital Ward at Goodna on 24th August, 1916.

The Hon. Mr. J. G. Peterson, M.L.A., officially opened Male Ward No. 13, now No. 14, at Goodna, on 10th August, 1929.

The Hon. Mr. E. M. Hanlon, M.L.A., officially opened Male Ward No. 14, now No. 15, at Goodna, on 4th May, 1934, and also the Children's Ward at Ipswich on the same day.

UNDER SECRETARIES.

Name.	From—	To—
Mr. A. O. Moriarty	15 Dec., 1859	..
Mr. A. W. Manning	13 Sept., 1860	..
Mr. H. H. Massie	13 Nov., 1869	..
Mr. F. Rawlins	1 Mar., 1877	..
Mr. R. J. Gray	1 Jan., 1880	..
Mr. W. E. Parry-Okeden	23 July, 1886	30 June, 1893
Principal Under Secretary	1 July, 1893	30 June, 1895
Mr. W. H. Ryder (Title changed to Under Home Secretary as from 29 July, 1896)	1 July, 1895	..
Mr. W. J. Gall	26 Nov., 1913	31 Dec., 1934
Mr. C. E. Chuter—Acting Under Secretary	1 Jan., 1935	12 Mar., 1936
Under Secretary	12 Mar., 1936	Still in office.

OFFICIAL VISITORS.

To Goodna and Sandy Gallop Mental Hospitals for the past twenty-seven and a-half years.

Dr. J. Thompson up to 1909.

Mr. R. A. Ranking, P.M., from 1st July, 1909, to 13th June, 1912.

Mr. J. J. MacDonald, P.M., from 14th June, 1912, to 28th March, 1918.

Dr. H. L'Estrange, from 17th June, 1909, to 29th April, 1930.

Mr. C. A. Morris, P.M., from 24th January, 1919, to 25th November, 1921.

Mr. T. Nevitt, from 28th April, 1922, to 24th June, 1931.

Dr. F. Glynn Connolly, from 24th July, 1930, to present date.

Mr. R. Curtis, P.M., from 27th July, 1931, to present date.

The first Director-General of Health and Medical Services, under whose Medical Administration the Mental Hospitals now come; Sir Raphael Cilento was appointed on 1st October, 1934, and is still in office.

Following is a list of the names of Medical Officers who have had charge of the Goodna Mental Hospital:—

Name.	From—	To—	Remarks.
Dr. Kersey Cannan	15 Feb., 1864	21 May, 1869	Medical Superintendent
(Appointed Visiting Medical Officer, on resignation on 21 May, 1869, which post he held until his death on 20 August, 1894, aged 80.)			
Dr. H. Challinor	21 May, 1869	1872	Medical Superintendent
Dr. C. Prentice	1872	1872	Medical Superintendent
Dr. J. Jaap	6 Aug., 1872	1877	Medical Superintendent
Dr. P. Smith	1 Aug., 1877	1 Oct., 1881	Medical Superintendent
Dr. R. B. Scholes	12 Dec., 1881	8 July, 1898	Died while in office. First appointment of Inspector of Asylums conjointly with the post of Medical Superintendent to the Goodna Mental Hospital
Dr. J. B. Hogg	1 Oct., 1898	20 Oct., 1898	Died while in office.
Dr. H. B. Ellerton	21 Jan., 1909	..	Still in office

The following table shows the average numbers of male and female patients daily resident in the hospital in the years the appointments of the abovementioned Medical Officers terminated:—

—	Year.	Males.	Females.	Total.
Dr. Kersey Cannan	1869	121	53	174
Dr. H. Challinor	1872	148	75	223
Dr. J. Jaap	1877	249	153	402
Dr. P. Smith	1881	320	228	568
Dr. R. B. Scholes	1898	644	393	1,037
Dr. J. B. Hogg	1908	740	459	1,199
Dr. H. B. Ellerton (Still in office)	1936	1,034	626	1,660

Following is a list of the names of Medical Officers who have held appointments as Assistant Medical Superintendents since this office was first created in the year 1874:—

Name.	From	To	Remarks.
Dr. E. R. Webb	25 July, 1874	30 June, 1878	Assistant Medical Superintendent
Dr. M. H. DeWebster ..	1 July, 1878	24 Jan., 1880	Assistant Medical Superintendent
Dr. W. Lamb	25 Jan., 1880	18 Jan., 1882	Assistant Medical Superintendent
Dr. A. Cutfield	19 Jan., 1882	30 June, 1883	Assistant Medical Superintendent
Dr. J. B. Hogg	1 July, 1883	30 Apr., 1890	First Senior Assistant Medical Superintendent
Dr. J. R. Nicoll	1 Oct., 1898	30 Sept., 1898	First Second Assistant Medical Superintendent and Senior Assistant Medical Officer
Dr. G. B. D. Macdonald	26 Sept., 1894	25 Feb., 1896	Second Assistant Medical Superintendent
Dr. G. F. J. Luther ..	26 Feb., 1896	30 Apr., 1907	Second and Senior Assistant Medical Superintendent
Dr. R. F. Harding ..	1 May, 1897	25 Oct., 1898	Second Assistant Medical Superintendent
Dr. R. A. Meek	13 Oct., 1898	14 Apr., 1900	Second Assistant Medical Superintendent
Dr. H. Chesson	16 Dec., 1898	23 Mar., 1900	Second Assistant Medical Superintendent
Dr. T. A. Price	17 Jan., 1900	31 Dec., 1900	Second Assistant Medical Superintendent
Dr. R. E. Kane	25 Apr., 1900	17 Jan., 1901	Second Assistant Medical Superintendent
Dr. H. Chesson	1 Feb., 1901	21 Aug., 1902	Senior Assistant Medical Superintendent
Dr. L. E. Row	24 Jan., 1901	30 June, 1904	Second and Senior Assistant Medical Superintendent
Dr. G. W. S. Marr ..	6 Sept., 1902	1 Mar., 1907	Second and Senior Assistant Medical Superintendent
Dr. L. W. Bond	1 Dec., 1906	31 May, 1908	Second and Senior Assistant Medical Superintendent
Dr. J. D. Buchanan ..	1 Mar., 1907	31 July, 1908	Second and Senior Assistant Medical Superintendent
Dr. H. V. Foxton ..	10 July, 1908	31 Jan., 1910	Senior Assistant Medical Superintendent
Dr. J. G. Avery	14 Aug., 1908	11 Nov., 1909	Second Assistant Medical Superintendent
Dr. J. O'Brien	1 Feb., 1910	24 Sept., 1915	Senior Assistant Medical Superintendent
Dr. J. M. Row	21 May, 1910	1 Dec., 1911	First Third Assistant Medical Superintendent
Dr. J. J. S. McEvoy ..	2 June, 1910	23 May, 1916	Second Assistant Medical Superintendent
Dr. T. C. Caldwell ..	5 July, 1912	11 Mar., 1916	Third Assistant Medical Superintendent
Dr. E. J. Howley ..	7 Dec., 1915	4 Oct., 1916	Senior Assistant Medical Superintendent
Dr. J. H. MacArthur ..	25 Nov., 1916	13 Apr., 1917	Second, later Senior Assistant Medical Superintendent
Dr. A. Morrison	1 Jan., 1917	3 Mar., 1919	Second, later Senior Assistant Medical Superintendent
Dr. C. DeW. Heard ..	22 Jan., 1917	30 Nov., 1918	Third Assistant Medical Superintendent
Dr. G. E. Aitken ..	28 Mar., 1918	6 Apr., 1921	Second, later Senior Assistant Medical Superintendent
Dr. J. Moray-Lawrence	1 Jan., 1919	In office	Third Assistant Medical Superintendent
Dr. R. P. Hill	20 Mar., 1919	3 Oct., 1921	Second Assistant Medical Superintendent
Dr. H. C. C. Shaw ..	9 Sept., 1921	30 June, 1928	Second, later Senior Assistant Medical Superintendent
Dr. A. E. Shaw	16 Dec., 1921	14 Sept., 1925	Second Assistant Medical Superintendent
Dr. A. S. Furness ..	1 Nov., 1925	30 Nov., 1926	Second Assistant Medical Superintendent
Dr. H. R. G. Barrett ..	21 Mar., 1927	In office	Second, now Senior Assistant Medical Superintendent
Dr. C. R. Boyce	19 Sept., 1928	20 Feb., 1929	Second Assistant Medical Superintendent
Dr. W. P. H. Parker ..	24 May, 1929	31 Dec., 1929	Second Assistant Medical Superintendent
Dr. F. C. Turnbull ..	8 Apr., 1930	9 Apr., 1934	Second Assistant Medical Superintendent
Dr. P. F. V. Crowe ..	24 May, 1934	In office	Second Assistant Medical Superintendent

Following are lists of the names of the Dispensers and Visiting Dentists, respectively, who have been appointed to the staff of this Hospital:—

DISPENSERS.

Name.	From	To	Remarks.
Mr. P. L. Pascoe.. ..	16 Oct., 1917	19 May, 1922	Died in office. First appointment
Mr. D. T. Morgan ..	23 May, 1922	20 Sept., 1924	
Miss Z. M. Jones.. ..	22 Dec., 1924	10 Jan., 1925	
Mr. E. F. Doyle	12 Jan., 1925	In office	

VISITING DENTISTS.

Mr. J. T. Finimore ..	18 Dec., 1928	31 Aug., 1935	First appointment
Mr. W. G. Illingworth ..	16 Dec., 1935	In office	

Following are lists of the names of the honorary Chiropodists and Honorary Assistant Chiropodist who have been appointed to the staff of this Hospital:—

HONORARY CHIROPODISTS.

Name.	From	To	Remarks.
Mr. B. Shay	20 Oct., 1927	In office	First appointment
Mr. E. J. Wolsey ..	20 Oct., 1927	In office	First appointment
HONORARY ASSISTANT CHIROPODIST.			
Miss Bellamy	17 Aug., 1936	In office	First appointment

Miss K. Gormley was the first Matron appointed with a General Nursing Certificate. She was appointed to the position of Matron at Goodna in 1914, since which time all Matrons and Assistant Matrons must be doubly qualified with General and Mental Nursing Certificates.

As the ratio of certified mental patients to the population remains fairly constant, the growth of the number of patients and, consequently, the number and sizes of the Mental Hospitals, increase in proportion. Naturally, therefore, in the long period of over twenty-seven years that I have held the office of Inspector of Asylums, numerous changes in buildings and progress in administration, have taken place to keep in step with the progress in the science and treatment of mental diseases. Prior to twenty-seven years ago there had been no training of the nursing staffs, not even of the higher posts such as the Matrons, although such had been in existence in England from as early as 1893. Elsewhere in this report are shown the numbers of the nursing staffs who now hold Mental, General, Obstetric, and Child Welfare Certificates, and the actual numbers and proportion of the nursing staffs holding such nursing certificates grow steadily year by year. In this way the patients obtain better and more skilled nursing and increased comfort and contentment.

The lighting of the administrative buildings, and even all the wards, in fact the whole of these hospitals, had only been by kerosene lamps. No hot water system for the wards was in existence and the earth closet system existed throughout all the wards and officers' residences in all the three mental hospitals of this State.

All this has been changed. Electric lighting systems exist now in all the three Mental Hospitals. Sewerage systems with up-to-date water closets have been installed throughout, and each ward in all the three Mental Hospitals is supplied with efficient hot water schemes. At Goodna all the wards that were in existence twenty-seven years ago, and that are still in use, have been considerably remodelled internally and added to by the provision of fire escape staircases to the two-storied wards; new sleeping-out balconies, bathrooms with hot and cold water, and lavatories; kitchenettes to Male Wards 1, 2, 3, 4, 5, and Female Wards 1, 2, 3, 4, 5, 6. Female 8 Ward has been so entirely remodelled and added to that it is virtually a new ward; and Female 7 (the admission ward) is entirely new, built in 1917. The old Male 1 and 2 Wards have been pulled down; also two wooden wards have been recently removed and new Male Wards 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 have been built since 1909. The most-recently designed wards have no upstairs at all, which greatly facilitates their working and administration, and increases the comfort and safety of the patients.

The hospital block, opened in 1917, containing accommodation for 22 male and 21 female patients, is entirely staffed, from a nursing point of view, with female nurses.

A wooden ward, built from the material of one of the dismantled wooden wards, was re-erected on the farm; all the twenty patients, who are accommodated in this ward and who are all on parole, are never locked up day or night; all doors can be opened by any patient, so that the danger from fire is reduced to a minimum.

The old wooden administrative building was re-erected on another site, and redesigned for use as an isolation ward in case of an outbreak of any infectious epidemic. I am pleased to report that it has hardly ever had to be used for this purpose.

Other new buildings have been the power station, with a disinfecting room; a modern kitchen and an up-to-date laundry; artisans' shops; carpenters' and paint shops; shoemaker's shop; sawmill, stables, farm buildings, milking shed, piggeries; silos and barns; and the addition of a stage to the recreation hall; and also fancy needlerooms, new residences for two medical officers, chief attendant, farm bailiff and stockman, and electrician.

The main drive has been partly remade; the whole of the roads have been guttered and kerbed—the designing of the park and recreation grounds, including a first-class cricket ground, football ground, and tennis court; the laying-out of a full eighteen-hole golf course; the reconstruction of many of the ward gardens (converting what were originally only yards into flower gardens), and a 9-acre vegetable garden, so designed that the whole or any section can be artificially irrigated as required.

TOOWOOMBA MENTAL HOSPITAL.

The Toowoomba institution got the name of "Willowburn" from the railway adjacent. While it was building, a siding was put in for the conveyance of building materials, &c., which for some time was known simply as the "Asylum Siding." By and by, as settlement grew in the neighbourhood, it rose to the dignity of a station, and was named Willowburn, and in time this name was applied to the locality served by this station. Possibly the willows along the creek there suggested the name, although I have heard that it was so named by the then Commissioner of Railways, John Mathieson—a Glasgow railway manager—after a Glasgow railway

station—"Sauchieburn." "Saueh" is Scotch for willow, and "burn" is Scotch for brook or creek.

It was opened on the 17th May, 1890, by the transfer of 10 female patients from Goodna Mental Hospital. Dr. James Ballantyne Hogg was the first Medical Superintendent, having been promoted to this position on 27th Deecmber, 1889, from that of Senior Assistant Medical Superintendent at Goodna. At the end of the year (31st December, 1890) there were 73 males and 123 females, total 196 patients, in residenee. Dr. Hogg continued in this post until 30th September, 1898, when he sueceeded Dr. R. B. Seholes as Inspector of Asylums and Medical Superintendent on the death of that officer.

Dr. Hogg was followed by Dr. J. R. Nicoll on 1st October, 1898, as Medieal Superintendent at Toowoomba by being promoted from the position of Senior Assistant Medieal Superintendent at Goodna. On Dr. Nicoll's retirement at the age of seventy, on 9th July, 1928, this hospital had grown from 254 males, 157 females, total 411, to 546 males, 520 females, total 1,066.

Dr. J. R. Nicoll was followed as Medieal Superintendent by Dr. J. E. F. MeDonald on 10th July, 1928, who had entered the Insanity Service in this State as Assistant Medical Superintendent, and was later promoted to the post of Medieal Superintendent to Sandy Gallop. He returned to Toowoomba as above, and has held the post up to the present time.

The following is a list, with dates, of all the Assistant Medical Superintendents who have held offiee at the Toowoomba Mental Hospital up to the present date:—

The first Assistant Medical Superintendent appointed to Toowoomba was Dr. R. E. Kane on 2nd February, 1899, as the institution was steadily inereasing in the number of its patients. Dr. R. E. Kane resigned on 24th April, 1900; he was followed by:—

- Dr. H. L. Chesson, from 25th July, 1900, to 31st January, 1901, when he was promoted as Senior Assistant Medical Superintendent to Goodna.
- Dr. G. W. S. Marr followed from 12th June, 1901, to 31st August, 1902.
- Dr. T. A. Price, from 19th November, 1902 to 1st March, 1903.
- Dr. A. Campbell, from 1st July, 1903, to 30th November, 1903.
- Dr. J. S. Watson, from 1st December, 1903 to 31st January, 1905.
- Dr. L. W. Bond, from 1st February, 1905, to 30th November, 1906; promoted to Goodna.
- Dr. R. R. Whishaw, from 1st December, 1906; killed by patient on 7th December, 1908.
- Dr. J. O'Brien, from 11th March, 1909, to 31st January, 1910, promoted to Goodna.
- Dr. E. R. A. McDonnell, from 29th April, 1910, to 11th January, 1917.
- Dr. J. R. Talbot, from 14th June, 1917, to 28th February, 1918.
- Dr. J. E. F. Macdonald, from 10th April, 1918, to 26th January, 1927; promoted to Sandy Gallop.
- Dr. B. F. R. Stafford, from 10th July, 1927, to 9th July, 1928; promoted to Sandy Gallop.
- Dr. J. R. Shannon, from 10th July, 1928, to 19th February, 1929.
- Dr. C. R. Boyce (promoted from Goodna), from 21st February, 1929, to 29th October, 1929.
- Dr. W. P. H. Parker (promoted from Goodna), from 1st January, 1930.

During the past twenty-seven and a-half years this hospital has increased in the number of patients from 734 in residence at the end of 1909 to a total of 1,138 in residence on 30th June, 1936. During this period two large two-storeyed wards, one a male ward and the other for female patients (each of which can accommodate 120 patients), have been built; also two small admission wards for patients of each sex; and finally, a hospital block with both male and female wards.

All these wards had their prototype at Goodna. An up-to-date new steward's general storeroom and office has also been built.

Other additions in this hospital include the power station for electrie lighting in place of oil lamp; the supply of water; the steward's house; additions to the nurses' home; sewerage system to all residenees and patients' wards; silos, stables, and other farm buildings.

Official Visitors to Willowburn Mental Hospital.

- Dr. E. A. Falkner, 11th February, 1904.
- Mr. T. H. Boddington, P.M., 22nd September, 1916.
- Mr. F. J. Cherry, P.M., 8th July, 1925.
- Mr. F. C. M. Burne, P.M., 18th March, 1926
- Dr. W. M. Sinelair, 28th July, 1927.
- Mr. R. Curtis, P.M., 1st July, 1931.
- Mr. F. C. M. Burne, P.M., 6th October, 1932.
- Dr. J. Coffey, 6th February, 1936.
- Mr. M. Gallagher, P.M., 5th March, 1936.
- Mr. P. G. Knyvett, P.M., 31st July, 1936.

Sandy Gallop Mental Hospital, Ipswich.

This hospital was opened on 31st May, 1878. Its original object was as a benevolent home, but it was never used for this purpose, but opened for mental patients, and until 1908 it eontained only one ward, whieh aeeommodated 237 male patients. This hospital was administered by Mr. Samuel Lewis, firstly as head attendant from 19th July, 1878, to 28th February, 1884, when he was promoted to the position of superintendent from 1st Mareh, 1884, whieh position he held until 31st January, 1910. During this period from the opening of this institution it was visited by one of the medical officers from Goodna. On the appointment of Dr. Foxton as the first resident Medieal Superintendent, Mr. Lewis was made Head Attendant and Steward, which dual post he held until his retirement on 30th November, 1916. During 1909 two new wards were being built and completed in 1910; one a seeond male, and the other a female ward. A medieal superintendent's house was also being built at this time, and Dr. Foxton—the Senior Assistant Medical Offieer at Goodna—was promoted as the first Medieal Superintendent to the Sandy Gallop Mental Hospital.

During the years of the Great War, when Dr. Foxton was absent on aetive serviee, the temporary vaeaney was filled by Drs. Jennings and Pender-Smith. Dr. Foxton resigning on his return from the war, the vacaney was then filled by the promotion of Dr. A. Morrison from 4th March, 1919, to 29th September, 1926. On the death of Dr. Morrison, Dr. J. E. F. McDonald was promoted from the post of Assistant Medical Officer to the Willowburn

Mental Hospital to fill the vacancy as Medical Superintendent, which post he held until 1927, when he gained further promotion, and he was succeeded by Dr. B. F. R. Stafford, who holds the position of Medical Superintendent at the present time.

Other new wards erected during the past twenty-seven years are the Male 3 ward, Female 2 and 3 wards, a Children's ward, and the hospital block containing wards for male and female patients.

A new administrative block of offices, and a nurses' home, recreation hall, general kitchen, stewards' stores and office, laundry, and power station have also been built during the early years of this period. Similarly to Goodna, electric lighting, W.C. sewerage system, and hot and cold water supplies to all wards have also been installed. The official residences of the steward, chief attendant, and engineer and electrician have been similarly constructed.

This hospital, which had only 235 male patients in 1909, now accommodates 367 males, 141 females, total 508.

A notable forward step was made in the Brisbane General Hospital on 10th May, 1918, when a mental ward, No. 14, was opened. This ward was designed for early transient mental cases prior to certification, where they could be kept under observation and given a chance of recovery without having to be sent as being certified insane to a mental hospital.

Included in this report are block plans of the three Mental Hospitals, showing new wards and other buildings, together with alterations and additions to already existing buildings, which have been carried out during the past twenty-seven years.

EPILEPTIC HOME, ROCKVILLE, WILLOWBURN.

Sir,—I beg to submit the Annual Report of the Epileptic Home for the year from 1st July, 1935, to 30th June, 1936:—

The nursing staff of this Home consists of a matron, two sisters, and eight nurses (only two of whom are trained), and two male warders.

The Home has accommodation for 37 males, 43 females, total 80 patients. Two dormitories and a sleeping verandah on the male side, and two dormitories for 20 and 23 beds, respectively, on the female side. Each side has its own dining-room.

The Admissions.

Of the 8 males, 11 females, total 19, admissions and readmissions, 3 males, 5 females, total 8, or 42·10 per cent., belonged to the Church of England; 4 males, 1 female, total 5, or 26·31 per cent., were Roman Catholic; whilst of the other admissions 1 male, 4 females, total 5, or 26·31 per cent., were adherents to the Presbyterian and Methodist Churches. Finally 1 female's religion was stated as Pentecostal.

Six males, 11 females, total 17, or 89·47 per cent. of the admissions, came from the South and South-western districts, while the rest of Queensland only supplied 2 males, 0 females, total 2, or 10·52 per cent. of the admissions.

Only one death, a male patient, occurred; the cause of death was due to epilepsy and cardiac failure.

The ages of the patients on admission show that 5 males, 5 females, total 10, or 52·63 per cent., were under twenty years of age; 1 male, 3 females, total 4, or 21·05 per cent., were between the ages of twenty to twenty-five years of age; the remaining 2 males, 3 females, total 5, admitted amounting to 26·31 per cent. of the admissions, were over twenty-five years of age.

All the patients admitted were single with the exception of 2 female patients.

Epileptic Fits.

As this Home is solely for epileptic patients, an analysis of the epileptic fits that occurred during the past year ending 30th June, 1936, will be of some interest. During the daytime the average number of epileptic fits to each male was 33·92; for each female patient there were 35·41 fits, and the number of epileptic fits for each patient of both sexes amounted to 34·81 for the twelve months in daytime based on the total number of patients under treatment.

The average number of fits occurring at night for the twelve months per patient was males 17·94 fits, females 15·05, and the nightly average of both sexes was 16·21.

Day and night for the twelve months there occurred an average per male patient 51·87 fits, per female patient 50·46 fits; for both sexes an average of 51·03 epileptic fits.

The daily average for each twenty-four hours during the past year was 5·46 fits on the male side, 8·01 fits on the female side, total 13·56 for both sides.

Medical.

During the past year an outbreak of Scarlet Fever occurred and eight cases were reported. As all cases were sent to the Isolation Ward of the Toowoomba General Hospital for treatment, the cost to this Institution amounted to £71 15s. 7d. A previous case of Scarlet Fever was reported early in the month of May, 1935. The other cases occurred in November.

All patients have been inoculated by the Visiting Medical Officer to prevent Typhoid Fever.

Two female, and two male patients, under the age of twelve years, have been immunised against Diphtheria by the Government Medical Officer, the last injection was given on the 23rd July, 1936.

Dental treatment is given by Mr. J. B. McLean at the Willowburn Mental Hospital, and those patients who are unable to walk are attended at the Home. A few patients requiring dentures, &c., visited Mr. McLean's Dental Surgery in Toowoomba.

Occupation.

Sewing-Room.

In the sewing-room a large number of articles for summer and winter wear for the female patients, table, ward, bed, and kitchen linen, cushions, curtains, and shirts and trousers for the small boys, were made. As there is no seamstress attached to the staff a nurse is placed in charge of the sewing-room on as many days as possible. Several patients assist with the sewing and mending. When necessary a dressmaker calls at the Home to make dresses for those patients with private funds.

Vegetable Garden.

Two very nice crops of potatoes—Brownells and White Carmens—were grown during the twelve months, but these were not sufficient for requirements. Most of the year sufficient other vegetables were grown for use as a second vegetable. Unfortunately the present crops of cauliflowers and cabbages and also the bean crop have been ruined by insects. Vegetables grown includes squashes, marrows, cucumbers, pumpkins, beans, peas, cabbages, cauliflowers, lettuce, beetroot, white and swede turnips, kohlrabi, sweet potatoes, parsnips, herbs, chilies, carrots, leeks, silver beet, spinach, rhubarb, radish, and tomatoes. A small crop of corn was grown and used as fowl feed. The potato crops produced twenty bags.

Poultry Yard.

Sufficient poultry was raised for Christmas, New Year, and Easter dinners, for all patients. At present there are twelve fowl and twenty-one ducks in the poultry yard, but during the coming year it is hoped to add a number of chickens and later sufficient eggs may be produced to supply the patients with eggs at Sunday mornings' breakfast, and also for baking puddings, &c. The pensioners and other patients with private funds usually buy eggs from local farms and shops.

Trade Instruction.

The appointment of a man who could teach the male patients in upholstery, boot-repairing, carpentering, plumbing, and painting, would be a great asset to these patients, by helping to make them useful to the Home and by filling up their time, and thereby making them much more contented. This is being asked for, and I trust this want in their lives will be supplied.

School.

The school-rooms are far too small and give inadequate accommodation. At present the children are being taught by other patients, but this is not satisfactory as in this scheme the teachers are alike subject to epileptic fits, which render them somewhat unreliable. A non-epileptic teacher should be appointed and a section of the male dining-room is being requisitioned to be separated by a movable partition which would give ample room for all the children this Home accommodates, as well as not trespassing on that portion used as the men's dining room.

Religious Services.

Religious services are held every Sunday by the Church of England, Methodist, Presbyterian, Lutheran, and Salvation Army ministers, on allotted days. Roman Catholic patients visit Willowburn once a month to attend Mass.

Entertainments.

Books, magazines, and childrens' weekly magazines, &c., were received from the patients' relatives and friends. The Church of England Guild supply a large amount of reading material, including pattern and fancywork, books, and childrens' weekly magazines, &c. Some patients buy weekly journals for their own use, and some procure books at a small fee from a travelling lending library. During the year thirteen books were added to the library. All reading matter is circulated.

Staff Entertainment.

During the year the Department approved the installation of a loud speaker in the Nurses' new sitting-room, for which they will be grateful as they have no piano or other music with which to entertain themselves.

Buildings.

During the year renovations to the Nurses' Quarters were carried out by the Department of Public Works, and the dining-room, kitchen, and bathroom were demolished and re-erected. A bedroom in the front of the building was converted into a sitting-room, and a new bedroom was erected. Glassed-in sleeping-out verandas are built on either side of the bedrooms, and a verandah at the rear of the building. The front entrance was restained and linoleum was supplied for all floors at the Nurses' Home. The nurses' laundry was demolished and re-erected. Dining-room furniture was also restained and polished. Linoleum was supplied for the bed-sitting room in the Matron's Quarters at the Administrative block, and a suite of furniture was granted for the nurses' new sitting-room.

A strong wire fence was erected around the general laundry of the Home and is a great improvement. A similar fence was also erected around the wards to prevent the patients going under the buildings. The garage was moved from the laundry yard to a more convenient location.

Following is a statement of expenditure incurred by the Department of Public Works on buildings, &c., at the Home during the twelve months ending on the 30th June, 1936:—

	£	s.	d.
Additions and alterations to Nurses' Quarters (Balance)	439	6	3
Enclosing laundryyard	131	3	1
External and internal painting	137	9	0
Repairs to windows, kitchen range, &c. ..	22	17	1
Supply of furniture and linoleum	47	6	6
Various minor repairs	8	16	6
Total	£786	18	5

Tables showing the admissions, readmissions, discharges, and deaths; ages of patients admitted and readmitted; conjugal condition of patients admitted and readmitted; districts from which patients were admitted and readmitted; religious persuasions of patients admitted and readmitted; and causes of death of patients during the twelve months ending on 30th June, 1936, together with a table showing admissions, readmissions, discharges, deaths, &c., during the past seventeen years, are appended:—

Admissions, Re-admissions, Discharges, and Deaths, for the Twelve Months ending 30th June, 1936.

—				Males.	Females.	Total.
On books of Epileptic Home on 1st July, 1935				31	47	78
On leave from Epileptic Home on 1st July, 1935				2	2	4
In residence on 1st July, 1935				29	45	74
	Males.	Females.	Total.			
Admitted for first time during twelve months	6	8	14			
Re-admitted during the twelve months	2	3	5			
Admitted and re-admitted during the twelve months				8	11	19
Total number under treatment during the year				39	58	97
Discharged, and died during the year—						
Discharged—	Males.	Females.	Total.			
Recovered	..	..	..			
Relieved	1	..	1			
Not improved	8	12	20			
Died	1	..	1			
Total discharged and died during the year				10	12	22
Remaining on books of Epileptic Home, 30th June, 1936				29	46	75
On leave on 30th June, 1936				2	3	5
In residence on 30th June, 1936				27	43	70

Ages of Patients Admitted and Readmitted during the year ended 30th June, 1936.

—	Males.	Females.	Total.
5 years and under 10 years	1	1	2
10 years and under 15 years	3	2	5
15 years and under 20 years	1	2	3
20 years and under 25 years	1	3	4
25 years and under 30 years	..	..	..
30 years and under 35 years	2	1	3
35 years and under 40 years	..	1	1
40 years and under 45 years	..	1	1
Total..	8	11	19

Conjugal Condition of Patients Admitted and Re-admitted during the Year ended 30th June, 1936.

—	Males.	Females.	Total.
Married	..	2	2
Single	8	9	17
Widowed	..	..	..
Divorced	..	..	..
Totals	8	11	19

Religious Persuasions of Patients Admitted and Re-admitted during the Year ended 30th June, 1936.

—	Males.	Females.	Total.
Church of England ..	3	5	8
Presbyterian	1	2	3
Methodist	..	2	2
Roman Catholic	4	1	5
Pentecostal	..	1	1
Total	8	11	19

Districts from which Patients were Admitted and Re-admitted during the Year ended 30th June, 1936.

—	Males.	Females.	Total.
Toowoomba	1	..	1
North and North-western Districts	1	..	1
Central and Central Western Districts	..	..	..
South and South Western Districts	6	11	17
Totals	8	11	19

Causes of Deaths that have occurred during the Year ended 30th June, 1936.

—	Males.	Females.	Total.
Epilepsy	1	..	1
Total	1	..	1

EPILEPTIC HOME, WILLOWBURN.

Year from 1st July to 30th June.	On Books. 1st July.			On Leave. 1st July.			In Residence. 1st July.			Admitted and Re-admitted. During twelve months from 1st July to 30th June.			Total under Treatment.			Discharged.			Died.			Transferred to Willowburn Mental Hospital.			Transferred to General Hospital.			On Books. 30th June.			On Leave. 30th June.			In Residence. 30th June.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1918-19	..	..	..	..	..	..	..	..	..	19	33	52	19	33	52	3	..	3	..	..	..	..	..	..	..	..	..	16	33	49	..	..	..	16	33	49
1919-20	16	33	49	..	..	..	16	33	49	24	15	39	40	48	88	21	13	34	1	5	6	..	..	..	..	..	..	18	30	48	..	..	..	18	30	48
1920-21	18	30	48	..	..	..	18	30	48	8	10	18	26	40	66	4	3	7	2	..	2	..	..	..	..	..	..	20	37	57	..	..	..	20	37	57
1921-22	20	37	57	..	..	..	20	37	57	12	10	22	32	47	79	6	5	11	..	2	2	..	..	..	..	..	..	26	40	66	..	..	..	26	40	66
1922-23	26	40	66	..	..	..	26	40	66	12	7	19	38	47	85	9	4	13	2	..	2	..	..	..	..	..	..	27	43	70	..	..	..	27	43	70
1923-24	27	43	70	..	..	..	27	43	70	9	10	19	36	53	89	5	1	6	2	2	4	..	..	..	..	..	..	29	50	79	..	..	..	29	50	79
1924-25	29	50	79	..	..	..	29	50	79	5	9	14	34	59	93	1	4	5	..	1	1	8	6	14	..	..	..	25	48	73	..	..	..	25	48	73
1925-26	25	48	73	..	..	..	25	48	73	13	9	22	38	57	95	2	6	8	2	1	3	2	..	2	..	..	..	32	50	82	..	..	..	32	50	82
1926-27	32	50	82	..	..	..	32	50	82	9	5	14	41	55	96	9	5	14	..	1	1	3	6	9	..	..	..	29	43	72	..	..	..	29	43	73
1927-28	29	43	72	..	..	..	29	43	72	7	5	12	36	48	84	6	1	7	1	1	2	1	..	1	1	1	2	27	45	72	..	..	..	27	45	72
1928-29	27	45	72	..	..	..	27	45	72	12	6	18	39	51	90	3	2	5	1	1	2	5	7	12	..	..	..	30	41	71	..	..	..	30	41	71
1029-30	30	41	71	..	..	..	30	41	71	4	5	9	34	46	80	2	4	6	3	1	4	2	8	10	..	..	..	27	33	60	..	1	1	27	32	59
1930-31	27	33	60	..	1	1	27	32	59	8	13	21	35	46	81	4	4	8	1	1	2	..	1	1	..	..	..	30	40	70	..	1	1	30	39	69
1031-32	30	40	70	..	1	1	30	39	69	9	13	22	39	53	92	5	6	11	1	..	1	4	5	9	..	..	..	29	42	71	..	1	1	29	41	70
1932-33	29	42	71	..	1	1	29	41	70	9	7	16	38	49	87	2	5	7	1	..	1	6	5	11	..	..	..	29	39	68	1	2	3	28	37	65
1933-34	29	39	68	1	2	3	28	37	65	6	12	18	35	51	86	4	1	5	1	1	2	4	2	6	..	..	..	26	47	73	2	3	5	24	44	68
1934-35	26	47	73	2	3	5	24	44	68	9	11	20	35	58	93	3	3	6	1	2	3	1	6	7	..	..	..	30	47	77	2	2	4	28	45	73
1935-36	31	47	78	2	2	4	29	45	74	8	11	19	39	58	97	4	6	10	1	..	1	5	6	11	..	..	..	29	46	75	2	3	5	27	43	70

DETENTION WARDS, BENEVOLENT ASYLUM, DUNWICH.

SIR,—I beg to submit a report for the twelve months ending on the 30th June, 1936, on the Detention Wards, Dunwich Benevolent Asylum:—

There are two detention wards in this Institution. The male detention ward, called No. 14 ward, has accommodation for 36 patients; on the occasion of my official visit there were 33 male patients in it; on the female side the detention ward has nine beds, and no patient was in occupation of this ward on the occasion of my visit.

During the past year 25 males, 9 females, total 34 patients, were placed in these wards.

These detention wards are used to accommodate those inmates—(1) who wander away and are apt to get lost, or (2) who will not conform to the rules of the Institution, or (3) who become excited, violent, or threatening to other inmates, or (4) who show mental deterioration, or (5) who are epileptics and require more supervision than can be given in the ordinary wards, or (6) those who are sick and at the same time are unsuitable, for various reasons, to be nursed by the female nurses of the hospital ward on the male side.

There are four single rooms attached to the male detention ward, which were completed last year, and have been of great service in carrying out the requirements of this ward.

In these detention wards are housed those borderline cases who have to be certified from time to time and transferred to a mental hospital, usually Goodna.

During the past twelve months from 1st July, 1935, to 30th June, 1936, 2 males, 0 female, total 2 patients, were discharged from Goodna and sent to the Dunwich Benevolent Asylum. Whilst 9 males, 4 females, total 13 inmates from Dunwich were sent to the Brisbane General Hospital No. 14 ward for observation where they were certified as insane and sent on to the Goodna Mental Hospital.

I again beg to recommend that some provision should be made legalising or investing the Medical Superintendent with authority and power to place such inmates as is necessary for their own and other inmates' welfare in these detention wards, and more so in the single rooms under lock and key. At present his position is most unsatisfactory, as it is necessary on his part to take some action to preserve the safety of the inmate himself or herself against their own actions and to guard against any violence towards other inmates which precautionary action on his part might lay himself open to a legal action on the inmate's part for want of some statutory authority. In other words, there is accommodation for some forty-five inmates in the detention wards but where is his legal authority to detain them?

There is great need of a bathroom in both the detention wards—Male 14 and Female 6—at present troublesome patients have to be taken to the general bathrooms, or if too troublesome to get them there their bathing has to be neglected. This want should be rectified at once, and suitable ward bathrooms, with a hot and cold water service, should be supplied without delay.

In conclusion, I desire to express my appreciation of the able assistance afforded me by Drs. J. E. F. McDonald and B. F. R. Stafford, Medical Superintendents of the Toowoomba and Ipswich Mental Hospitals respectively.

I also take this opportunity of acknowledging the help and courtesy extended to me by the officers of the Department of Health and Home Affairs. I have to specially thank the Health Department for valuable help in carrying out the Wassermann tests and other pathological work required from time to time; and on all occasions when my official duties have brought me in contact with the Department of Public Works or other Government Departments their willing co-operation has eased the burden of my duties and responsibilities.

Yours obediently,

H. BYAM ELLERTON,

Inspector of Asylums.

ANNUAL REPORT

OF THE

DIRECTOR OF INFANT WELFARE

TO

30th JUNE, 1936.

Information contained in the Tenth Annual Report of the Director of Infant Welfare for the Year 1935-36.

To the Director-General of Health and Medical Services

The Birth-rate in Australia and Queensland.

Sir,—In last year's Report I dealt with this subject in some detail; this year I shall refer to it more briefly. It is now generally known that the birth-rate has fallen; but it is not yet realised how greatly it has fallen within a comparatively short time. Within twelve years—that is, from 1921 to 1933—the birth-rate, both in Queensland and Australia, has fallen by one-third.

This will be best realised by examining the graphic representations given opposite. In Australia, the rate remained constant from 1901 (27·6) to 1911 (27·2). During the next ten years there was a gradual fall to 24·95 in 1921, when our graph begins. So far there was little cause for apprehension. But in 1922 the rate began to fall more quickly to 21·27 in 1928, so that in six years it had fallen considerably more than in the preceding eleven years. This fall commenced somewhat suddenly, and proceeded with such uniformity that it cannot be attributed to any of the many causes which may produce transient fluctuations in the rate. Some important and constant factor must have been at work, and there is little doubt that it has been due to the spread of the practice of contraception. This has now become a lucrative trade, as may be inferred from the advertisements in our newspapers.

In 1928 the fall steepened, and continued at a nearly uniform rate until 1932. In this period another cause co-operated—the economic result of the financial depression. Recently this has been lifting, and the fall was checked, reaching its lowest in 1934 (16·39), with a fractional rise to 16·55 in 1935. The graph for Queensland, based on a much smaller population, was not so regular, but the fall was equally great in proportion. Here also it was checked in 1932, reached its lowest in 1933 (18·13), and shows a fractional increase to 18·31 in 1935.

The fall has ceased—at least for a time—but it has ceased at a low rate, and it would be sanguine to expect any speedy and permanent rise. It is quite possible that the next few years may see a further fall.

We must once more emphasise the serious import of these facts. Nations survive war, pestilence, and famine; some have survived conquest; but sterility is the surest road to national death.

Maternal Mortality.

Nothing but confusion and unnecessary alarm can follow comparisons between the puerperal and maternal mortality statistics published in Australia and those of other countries, for these statistics are compiled and classified in many different ways. I shall not attempt this unprofitable task, which can lead to no conclusions of any value. Even the English figures, as has been recently pointed out by Dr. Marshall Allan, do not include deaths from "criminal abortion," and are, therefore, not comparable with those of the Commonwealth.

The Commonwealth figures themselves are not comparable before the year 1931, for in that year a new and more accurate system of classification was adopted. It is, however, possible to compare the five years 1931-1935 both for Australia and Queensland. They are here classified according to the method adopted in my last report:—

Deaths from Puerperal Causes, Australia, 1931–1935. Per Thousand Births.

—	1931.		1932.		1933.		1934.		1935.	
	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.
Deaths from Abortion	185	1·6	182	1·64	171	1·5	189	1·7	188	1·65
Deaths from Accidents of Pregnancy.. ..	37	0·3	37	0·33	33	0·3	39	0·4	35	0·36
Deaths from Childbirth	428	3·6	399	3·6	367	3·3	403	3·7	375	3·36
Total Deaths	650	5·5	618	5·6	571	5·1	631	5·8	598	5·3

Allowing for slight annual fluctuations, the ratio of deaths per thousand births under each heading may be taken as stationary.

Deaths from Puerperal Causes, Queensland, 1931–1935. Per Thousand Births.

—	1931.		1932.		1933.		1934.		1935.	
	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.
Deaths from Abortion	17	1·0	21	1·2	20	1·6	28	1·6	18	1·01
Deaths from Accidents of Pregnancy.. ..	9	0·5	11	0·6	6	0·3	5	0·3	11	0·62
Deaths from Childbirth	82	4·2	55	3·2	60	3·5	47	2·7	44	2·43
Total Deaths	108	5·7	87	5·0	86	5·4	80	4·6	73	4·1

Even after allowing for greater variation due to the smaller numbers dealt with, there has probably been some real improvement in the Queensland mortality, which now compares favourably with that of the whole Commonwealth.

The three largest causes of death from childbirth are—(1) puerperal sepsis, (2) puerperal albuminuria and convulsions, (3) hæmorrhage.

AUSTRALIA. PER THOUSAND BIRTHS.

—	1931.		1932.		1933.		1934.		1935.	
	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.
Deaths from Puerperal Sepsis	103	0·9	84	0·8	92	0·8	98	0·9	89	0·8
Deaths from Puerperal Albuminuria and Convulsions	99	0·8	117	1·1	91	0·8	96	0·9	93	0·8
Deaths from Puerperal Hæmorrhage ..	77	0·7	71	0·6	61	0·6	80	0·7	77	0·7

QUEENSLAND. PER THOUSAND BIRTHS.

—	1931.		1932.		1933.		1934.		1935.	
	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.	No. of Deaths.	Deaths per 1,000 Births.
Deaths from Puerperal Sepsis	11	0·6	15	0·9	7	0·4	8	0·5	10	0·6
Deaths from Puerperal Albuminuria and Convulsions	20	1·1	14	0·8	17	1·0	15	0·9	10	0·6
Deaths from Puerperal Hæmorrhage ..	13	0·7	8	0·5	8	0·5	5	0·3	6	0·3

INFANT MORTALITY.

We are pleased to report that this fell in 1935 to 37·26, as compared with 40·6 in 1934, and is the lowest in Queensland since 1931, when it was 36·6.

INFANT MORTALITY PER 1,000 BIRTHS—QUEENSLAND.

—	1934.		1935.	
	Number of Deaths.	Mortality Rate.	Number of Deaths.	Mortality Rate.
During first week	432	24·88	417	23·58
After first week, but within first month	71	4·09	65	3·67
After first month, but within first year	202	11·64	177	10·01
Total for first year	705	40·6	659	37·26

Of late years mortality after the first week has been steadily decreasing, while that during the first week has remained almost stationary. In consequence the proportion of first-week deaths has gradually increased, until almost two-thirds of the infant mortality in 1935 occurred in the first week of life. Analysing the causes of death, we obtain the following table :—

INFANT MORTALITY—QUEENSLAND, 1931–1935.

Year.	Number of Births.	Deaths under one year.	Ante-natal Causes.	Bronchitis and Pneumonia.	Diarrhœal Diseases.	Whooping Cough.	Diphtheria.	Influenza.	Measles.	Total from these infections.	From all other causes.
1931 ..	17,883	652	462	63	34	9	2	6	..	17	76
1932 ..	17,367	699	508	64	34	14	4	10	..	28	62
1933 ..	17,150	731	500	86	39	13	3	13	4	33	73
1934 ..	17,360	705	511	58	25	32	4	5	1	42	68
1935 ..	17,688	659	481	59	26	13	2	6	1	22	71

The figures for the ante-natal causes and for deaths during the first week or month always show a near approximation. Most of these deaths are inevitable; but many might have been saved by improving the mother's health. Many premature infants also might be saved by skilled care. The mothercraft home, which we hope for in the near future, will have a special room for premature infants, and as Brisbane contains nearly one-third of the population of the State it should save many lives.

ANNUAL INFANT MORTALITY PER 1,000 BIRTHS IN AUSTRALIA AND NEW ZEALAND.

Year.	N.S. Wales.	Victoria.	Tasmania.	West. Aus.	Queensland.	South Aus.	N. Zealand.
1931	43·5	44·5	46·0	41·5	36·6	36·4	32·2
1932	41·6	43·0	40·5	44·6	40·3	36·7	33·7
1933	39·3	40·4	41·1	36·8	42·6	32·1	31·6
1934	46·4	44·6	42·3	40·9	40·6	35·6	31·7
1935	39·4	41·2	51·8	40·2	37·3	30·5	32·2

AVERAGE INFANT MORTALITY IN FIVE-YEAR PERIODS.

Year.	N. S. Wales.	Victoria	Tasmania.	West. Aus.	Queensland.	South Aus.	N. Zealand.
1916–20 ..	65·3	67·0	63·6	61·6	63·5	61·9	48·6
1921–25 ..	58·5	62·0	60·3	59·4	51·1	54·1	42·7
1926–30 ..	54·8	52·2	53·5	49·2	47·3	47·0	36·7
1931–35 ..	41·9	42·7	44·3	40·8	39·4	35·2	32·3

CHILD MORTALITY PER 1,000 QUEENSLAND.

Year.	Mortality, 1 to 2 years of age, per 1,000.	Mortality, 2 to 5 years of age, per 1,000.
1931	5·43	3·07
1932	6·03	2·21
1933	6·91	2·30
1934	6·34	2·62
1935	6·61	2·56

The child mortality has not improved of late years, nor can we expect it to improve until a better standard of nutrition prevails among Queensland children taken as a whole.

CAUSES OF DEATH IN INFANTS AND YOUNG CHILDREN IN QUEENSLAND IN 1935.

Deaths from ante-natal causes have already been discussed. There have been in the first year of life fewer deaths from epidemic diseases, and a lower rate also from respiratory and diarrhœal infections. An analysis of causes of death in children from one to two years shows that the highest figures are those from bronchitis and pneumonia (34), and next from diarrhœa and dysentery (26). In those two to five years the only diseases showing high figures were pneumonia (18), diarrhœa and dysentery (17), and diphtheria (17).

DEATHS FROM ACCIDENTS.

Too many died as the result of accidents. They numbered 19 in the first year, 12 in the second, and 32 between two and five years—a total of 63. There will always be some accidents at these years, but most dangerous accidents might have been prevented by more care and foresight.

MILK RATIONS FOR CHILDREN.

In my last two reports I have called attention to the improvement that has resulted in the health and nutrition of children belonging to families on relief in the city of Adelaide, as a result of the inclusion of milk in the rations issued to them. Last year the South Australian Government requested a medical committee to report on the necessities required for an adequate diet for children. This committee strongly recommended that every child on rations up to six years of age should receive 1 pint of milk daily, every child from six to thirteen years ½ pint daily, and every nursing mother 1½ pints daily, in addition to other rations. Their recommendations were adopted by the South Australian Government.

There are families with children on rations in Queensland. It is surely the wish of the Queensland Government that the rations issued to them should be such as to satisfy their requirements for good health and nutrition. I urgently press this matter on the attention of our relief authorities, in the hope that they may be guided in this matter by the scientific knowledge now easily available. I am aware that milk is issued to special cases on the receipt of a medical certificate, but this by no means meets the necessity of the case. Milk is necessary for all children, not only for those who happen to see a doctor and obtain a letter from him.

OUR MATERNAL AND INFANT WELFARE WORK IN 1935-36.

This has been a very busy year, and there has been a large increase in our work. The total attendances at our clinics, including those of mothers needing advice, rose from 136,925 in 1934-35 to 168,002; the attendances of infants and children only, from 107,636 to 146,880.

THE NEW BRANCHES.

Much of this increase was due to the new branch clinics, which were opened between March and August, 1935, and first came into full operation during the past year. Their progress has been more rapid than was expected, and already it has been necessary to extend the time allotted to them in several instances. Conspicuously large have been the attendances at Ayr, Home Hill, Gladstone, Proserpine, Dalby, Boonah, Stanthorpe, Nambour, and Southport. Many other branches have responded equally well in proportion to population. There are others in which the attendances have not yet reached normal proportions, but may be expected to do so within the present year. The only new branch which has so far proved a failure is that at Goodna.

A new departure has been the opening of fortnightly branches at places where the number of children did not justify opening every week, or where the distances and imperfect railway services did not allow of it. Here, of course, the total attendances have been less, but sufficient to justify the experiment.

During the past year the attendances for the Ipswich district have increased 69 per cent., for the Toowoomba district 65 per cent., for the Rockhampton district 55 per cent., for the Townsville district 47 per cent., for the Mackay district 46 per cent., and for the Warwick district 37 per cent.

It must not be supposed that the great increase in our attendances has been wholly due to the opening of new branches. Among the central clinics there has been a very large increase in Rockhampton, substantial increases in the Valley, Herschell street, Woolloongabba, Wynnum, Ipswich, Gympie, Maryborough, Mackay, Townsville, and Cairns. At Bundaberg the attendances, always good, have been about level. On the other hand, there have been small decreases at West End and Toowoomba, and larger decreases at Warwick and Charters Towers. Among the older branches there have been small decreases at Sandgate and Innisfail, larger at Kedron, Nundah, Atherton, and Gordonvale, but substantial increases at Babinda and Edmonton. The total increases in the centres and older branches amount to 6,449, the decreases to 2,448, leaving

a favourable balance of 4,001. In the following table the figures are given in detail:—

ATTENDANCE (INFANTS AND CHILDREN).

——	1934-35.	1935-36.
Metropolitan.		
Valley Centre	13,003	13,681
Cribb Island	28	306
Kedron	865	769
Nundah	2,003	1,696
Sandgate	1,624	1,570
Zillmere	32	292
Enoggera	19	817
Totals	17,574	19,131
Herschell Street Centre	13,017	13,457
Indooroopilly	160	697
Total	13,177	14,154
Woolloongabba Centre	13,601	14,061
Bulimba	1,214	898
Morningside	104	916
Yeronga	105	849
Total	15,024	16,724
West End Centre	3,850	3,798
Wynnum Centre	2,912	3,327
Country.		
Country Branches visited from Brisbane—		
Beaudesert	145	780
Caboolture..	183	506
Nambour	205	980
Southport	346	1,025
Total	879	3,291
Ipswich Centre	5,001	5,249
Boonah	66	1,058
Esk	61	299
Goodna	35	142
Laidley	31	578
Lowood	36	429
Rosewood	102	878
Toogoolawah	19	367
Total	5,351	9,000
Toowoomba Centre	5,082	4,939
Allora	25	484
Clifton	20	390
Dalby	..	1,594
Gatton	..	413
Oakey	..	320
Pittsworth	..	303
Total	5,127	8,443
Warwick Centre	3,807	3,440
Goondiwindi	..	408
Inglewood	..	242
Killarney	..	219
Stanthorpe	..	921
Total	3,807	5,230
Gympie Centre	3,358	3,571
Maryborough Centre	4,822	5,402
Bundaberg Centre	6,156	6,120
Rockhampton Centre	6,731	7,969
Gladstone	89	1,107
Mount Larcom	173	771
Mount Morgan	95	888
Yeppoon	204	581
Total	7,292	11,316

ATTENDANCE (INFANTS AND CHILDREN)—*continued.*

——	1934-35.	1935-36.
Country—continued.		
Mackay Centre	6,771	7,404
Bowen	16	771
Proserpine	20	1,222
Sarina	204	613
Total	7,011	10,010
Townsville Centre	9,194	9,688
Ayr	50	1,596
Home Hill	20	1,606
Ingham	..	908
Total	9,264	13,798
Charters Towers Centre	3,368	2,955
Cairns Centre	5,177	5,896
Atherton	981	797
Babinda	1,075	1,205
Edmonton	270	346
Gordonvale	1,174	1,016
Innisfail	1,618	1,546
Total	10,295	10,806
Western Branches (opened July, 1936)		
Aramac	..	26
Barcaldine	..	44
Longreach	..	53
Total	..	123

WESTERN CLINICS.

For the first time branch clinics are being opened in Western Queensland. Those in Aramac, Barcaldine, and Longreach were opened in June, and others in July at Roma, Chinchilla, Mitchell, Charleville, Cunnamulla, and Quilpie. In no district is our work more needed, but on account of the long distances and imperfect railway service, in no district is it more difficult. We are confident that it will not prove too difficult for our nurses, who have demonstrated their courage and endurance by travelling in the Infant Welfare railway car.

NURSES' VISITS.

By force of circumstances, few, if any, visits can be paid at country branches. It is, therefore, very creditable that the total number of visits has increased during the year.

1935-36.

Visits to Newborns	7,888
Subsequent and other visits	4,732
Total visits	12,620

Year.	Total Number of Visits.
1931-32	12,361
1932-33	11,992
1933-34	11,206
1934-35	11,978
1935-36	12,620

NUMBER OF NEW CASES SEEN AT THE CLINICS IN EACH OF THE LAST THREE YEARS.

—	1933-34.	1934-35.	1935-36.
Infants under one year	6,131	7,027	8,024
Infants between one year and two years	623	669	781
Children over two years	1,698	1,698	1,987
Total Infants and Children	8,542	9,394	10,792
Expectant mothers	778	882	1,074
Non-expectant mothers	4,846	5,671	6,748
Total mothers needing advice	5,264	6,553	7,822
Total all new cases	14,076	15,946	18,614

The steady increase in the number of new cases, both mothers and children, coming to the clinics each year is most encouraging.

Perhaps the best indication of the extent of our work is the proportion of the number of infants under one year brought to our clinics to the total number of births. The table given below shows that this has been steadily increasing, but indicates also that there is room for improvement in the percentage:—

TOTAL BIRTHS DURING THE YEAR.

Year.	Number.
1927	19,830
1928	19,783
1929	18,487
1930	18,939
1931	17,833
1932	17,367
1933	17,150
1934	17,360
1935	17,688

NUMBER BROUGHT TO CLINICS—PERCENTAGE DURING THE YEAR.

Year.	Number.	Percentage.
1927-28	6021	30
1928-29	6286	32
1929-30	6408	35
1930-31	6576	35
1931-32	6225	35
1932-33	6197	36
1933-34	6131	36
1934-35	7027	40
1935-36	8024	45

These figures do not include those whom we reach by correspondence, by the Infant Welfare railway car, by the Queensland Mothers' Book, and by our newspaper articles.

THE INFANT WELFARE RAILWAY CAR.

Although this is no substitute for branch clinics, it has been and still is a pioneering service of great usefulness. It offers clinic advice to all mothers and children, although only once in the year. This may seem of little service, but it must be understood that these mothers are encouraged to correspond with the nurses of the nearest clinic, even if they are not able to visit them, and this may be of great service. By lectures to women and health talks to children there is given to outback and small places a service that is not yet available in our towns. By giving a practical demonstration of what a baby clinic is, the visits of the car have often inspired a wish for a permanent branch clinic—a wish that we have fortunately in many cases been able to satisfy.

This very success has restricted the operations of the car, which no longer visits townships where our nurses are available throughout the year. It now stops at much smaller places, and consequently the figures for last year are smaller. In many of these places the visits of the car are welcomed, and the attendances in proportion to population are good. Unfortunately in many the inhabitants still show little interest. They know so little of the real meaning of maternal and child welfare that they do not wish to know more. We have always recognised that those who need our help most want it least. This indifference can be overcome much more easily by weekly or fortnightly than by yearly visits. But even these, with patience and perseverance, ultimately do good. Where the local branches of the Queensland Country Women's Association are interested, our work is much helped; where they are indifferent, it makes slower progress.

INFANT WELFARE RAILWAY CAR.

Year.	Children and Mothers attending for advice.	Women at Lectures.	Children at Health Talks.
1930–31	2,447	1,569	4,607
1931–32	2,626	1,575	6,105
1932–33	3,037	1,467	6,849
1933–34	2,511	1,361	9,945
1934–35	2,276	1,224	12,519
1935–36	1,817	808	9,207

THE BRISBANE ANTE-NATAL CLINICS.

The number of new cases and attendances at the two metropolitan ante-natal clinics under the direction of Dr. Beatrice Warner has been maintained at last year's level.

ANTE-NATAL CLINICS.

—	1934-35.		1935-36.	
	New Cases.	Attendances.	New Cases.	Attendances.
Valley	338	1,001	335	1,154
Wooloongabba	246	874	245	924
Totals	584	1,875	580	2,078

New Cases seen in Ante-natal Clinics.

—	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Valley	94	131	150	210	271	338	335
Wooloongabba ..	106	117	133	173	214	246	245
Totals ..	200	248	283	383	485	584	580

THE TRAINING CENTRE.

Fifty-one nurses have passed through the training school, and obtained child welfare certificates. The number of nurses with these certificates registered by the Queensland Nurses' Board is 205. Of these 45 are employed in our clinic service. The increasing number of nurses holding child welfare certificates, in addition to those employed in the baby clinics, is of great service in maternity hospitals, general hospitals, and private practice.

Acknowledgments.

We desire to express our thanks to the Queensland Country Women's Association, to the Department of Public Instruction and the school teachers, to the Railway Department and staff for the care they have taken of our nurses' comfort, to the newspapers, who have published our monthly articles and other information, to 4QG for broadcasting, and to many good friends, who have helped us.

The many new branches have kept our nurses busy, and it is to their zeal and enthusiasm that we chiefly owe the very satisfactory progress in most of them.

I am, &c.,

A. JEFFERIS TURNER,

M.D. Lond., D.P.H. Camb.

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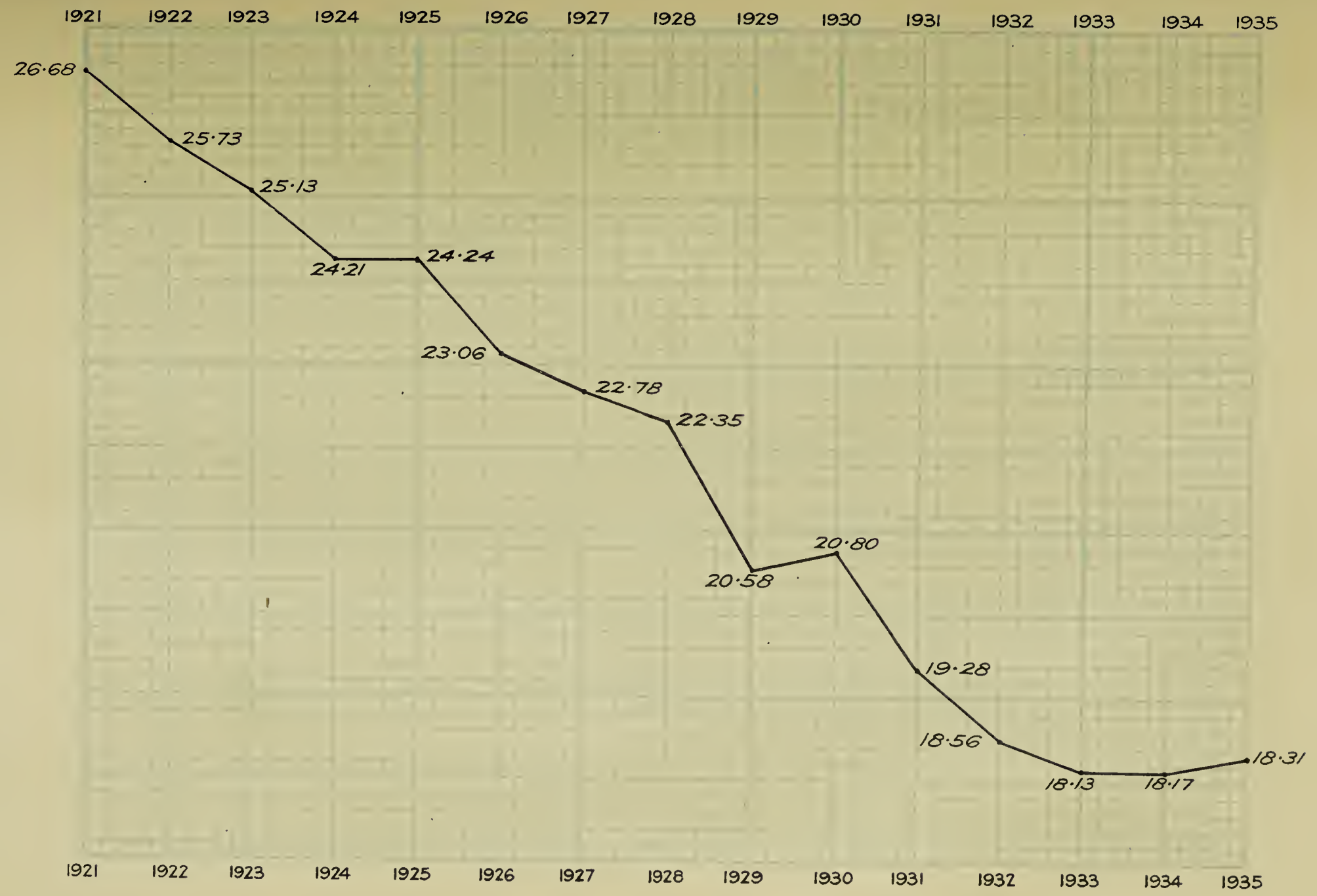
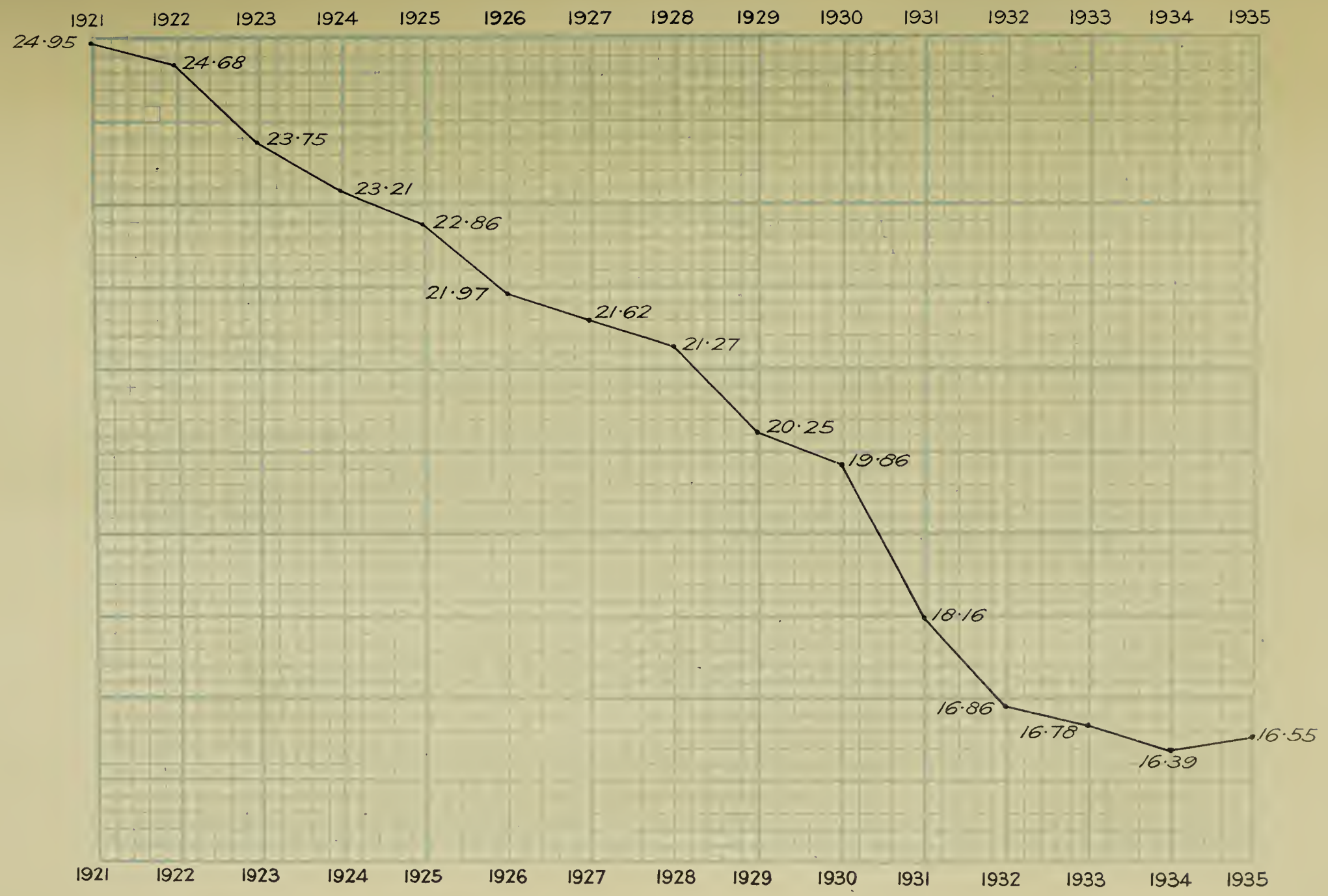


— BIRTH-RATE PER 1000 POPULATION. QUEENSLAND. 1921-1935 —

26.68
27.13
27.52
27.54
27.54
27.52
27.52
27.52



— BIRTH-RATE PER 1000 POPULATION. AUSTRALIA. 1921-1935. —